



A · I · A

July 1960

Journal

OF THE AMERICAN INSTITUTE OF ARCHITECTS



The Ecole des Beaux Arts • Philosophy and Architecture • Centering the Arts
Cities Are Funny • Nature of the Creative Process • Facilities for the Aging (BTRG)



Roosevelt Hospital, New York City Architects: Kiff, Colean, Voss and Souder, Offices of York and Sawyer, New York City

YOU CAN SPECIFY *Vina-Lux*® VINYL ASBESTOS TILE
WITH CONFIDENCE

because . . .

- ▲ It's an honest product skillfully made by men dedicated to quality.
- ▲ It's a vinyl flooring reinforced with asbestos fiber — stable, durable and attractive.
- ▲ It's available throughout the United States through responsible outlets.
- ▲ It's made by a company earnestly trying to serve the architect with constantly improved products that solve architectural floor problems.
- ▲ Finally, Vina-Lux performance is guaranteed by its maker.



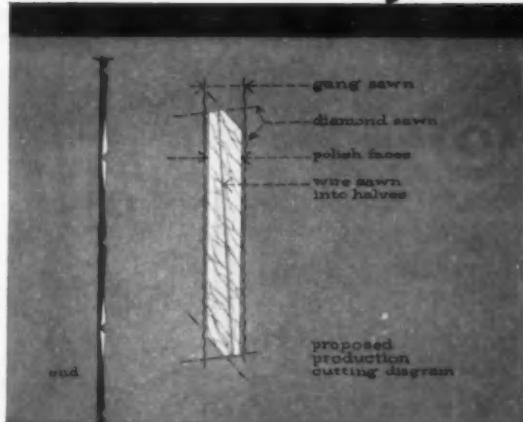
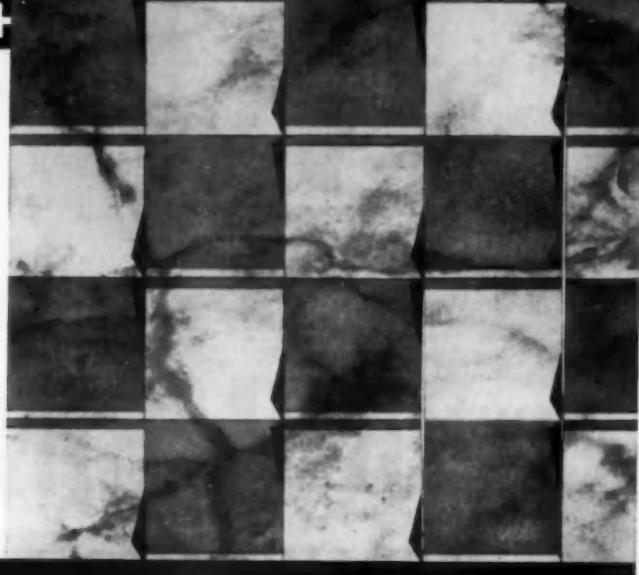
AZROCK FLOOR PRODUCTS DIVISION

UVALDE ROCK ASPHALT CO. • 594A FROST BANK BLDG. • SAN ANTONIO, TEXAS

MAKERS OF VINA-LUX • AZROCK • AZPHLEX • DURACO



DESIGN * **Excitement** WITH **MARBLE**



The new face of marble . . . here in a series of angled facets providing constantly changing light patterns. Today, creative architects can combine the beauty and durability of this proven material with new production and setting techniques for any desired texture. More than 200 marble varieties offer architects practically unlimited colors and designs. Perfect for spacious interiors, graceful exteriors—or for striking dramatic accents anywhere. Surprisingly economical, too—marble frequently costs less than other materials which require expensive continuing maintenance. For information on marble in modern architecture, write

MARBLE INSTITUTE OF AMERICA, INC.

32 SOUTH FIFTH AVENUE, MOUNT VERNON, NEW YORK



*without
increasing
your present
wall space...*

**up to DOUBLE
YOUR CHALKBOARD-
TACKBOARD AREA
with the NEW...**



Copyright 1960—Loxit Systems, Inc.

LOXIT KOMBINO EXPANDABLE CHALKBOARD-TACKBOARD SYSTEM

Here is the solution to a pressing classroom need for greater chalkboard and tackboard areas where existing space would not otherwise permit. The new Loxit Kombino Expandable Chalkboard-Tackboard System provides for movable panels interchangeable from room to room. The panels, available up to 4' wide, are adaptable to existing installations regardless of the type of trim. No structural changes are necessary on either new or old construction. The chalkboard-tackboard area can be increased as much as 100% as needed—easily, quickly and economically—without increasing or changing present chalkboard-tackboard wall space.

Write Today for the Descriptive Four-Page Folder!

LOXIT SYSTEMS, INC. 1217 W. WASHINGTON BLVD., CHICAGO 7, ILL.





A · I · A

Journal

EDITOR

Joseph Watterson, AIA

ASSISTANT EDITOR

N. Carl Barefoot, Jr

TECHNICAL EDITOR

Eric Pawley, AIA

ART DIRECTOR

Wolf Von Eckardt

ART ASSISTANT

Marilyn Smoot

CIRCULATION ASSISTANT

Margie Wynn

SECRETARY

Janet R. Williams

FOREIGN NEWS EDITOR (Europe)

Henry S. Churchill, FAIA

FOREIGN NEWS EDITOR

(Latin America)

Samuel I. Cooper, FAIA

The Journal of The American Institute of Architects, official organ of the Institute, is published monthly at the Octagon, 1735 New York Avenue, N.W., Washington 6, D.C. Editor: Joseph Watterson. Subscription in the United States, its possessions and Canada, \$4 a year in advance; elsewhere, \$5.50 a year. Chapter Associate members, \$2.00; Students, \$2.00; Members of Art Museums, Associations, etc., \$2.00 (by special group arrangement). Single copies 50c. Copyright, 1960 by The American Institute of Architects. Entered as second-class matter February 9, 1929, at the Post Office at Washington, D.C. under the Act of March 3, 1879. Change of Address: Notify the Octagon, giving both old and new addresses. Allow four weeks for change. • The official address of the Institute as a N.Y. Corporation: 115 E. 40th Street, New York, N.Y. • The Producers' Council affiliated with AIA, 2029 K Street, N.W., Washington 6, D.C. • Opinions expressed by contributors to the Journal are not necessarily those of the AIA.

VOLUME XXXIV, NO. 1

JULY 1960

- 12 Letters to the Editor
- 18 News
- 23 *Jacques Barzun: Centering the Arts*
- 25 *Ralph Mitchell Crosby, AIA: Clients, God Bless 'Em!*
- 34 Favorite Features
- 35 Cities are Funny
- 38 *Dr Gustav E. Mueller: Philosophy and Architecture*
- 44 *Edwin Bateman Morris, Sr, FAIA: The Pneumatic Hammer*
- 46 *Edward J. Thias, AIA: A Mall for Downtown St. Louis*
- 49 The Nature of the Creative Process

THE PROFESSION

- 54 *Harley J. McKee, AIA: The Fine Art of Architectural Deception*
- 56 Sharp Focus: Nature of Research for Architecture
- 57 *Arthur C. Holden, FAIA: Beauty Undulates*
- 58 *Robert Ingle Hoyt, AIA: The Effect of Capital Gains Tax*
- 59 Favorite Features
- 60 *William Stanley Parker, FAIA: Do You Know Your Documents?*

THE INSTITUTE

- 61 From the Executive Director's Desk
- 63 *Elise Gerard: Plan for Everyman*
- 64 The Student's Page
- 66 Library Notes
- 67 Book Reviews
- 70 The Editor's Page
- 81 New Corporate Members
- 82 Calendar, Necrology
- 104 Allied Arts

TECHNICAL

- 71 New Aspects of Handling Granite
- 73 *Clinton H. Cowgill, FAIA: Facilities for the Aging and Infirm*

THE COVER

Obviously our artist, Thomas E. Hutchens, never studied at the Ecole des Beaux Art. But we made him look at some of the school's work before we let him put his interpretation of them on our cover.



THE AMERICAN INSTITUTE OF ARCHITECTS

BOARD OF DIRECTORS

Officers (Terms expire 1961)

President
First Vice President
Second Vice President
Secretary
Treasurer
Executive Director

*Philip Will, Jr., FAIA, 309 West Jackson Blvd., Chicago 6, Ill.
Henry L. Wright, FAIA, 1125 W. 6th Street, Los Angeles 17, Calif.
James M. Hunter, FAIA, 1126 Spruce Street, Boulder, Calif.
*J. Roy Carroll, Jr., FAIA, 6 Penn Center Plaza, Philadelphia 3, Pa.
*Raymond S. Kastendieck, FAIA, 128 Glen Park Ave., Gary, Indiana
Edmund R. Purves, FAIA

Regional Directors (Terms expire 1961)

North Central District
Western Mountain District
New York District
New England District

*Harold T. Spitznagel, FAIA, 1800 S. Summit Ave., Sioux Falls, S. D.
Frederic H. Porter, AIA, 1009 E. Lincolnway, Cheyenne, Wyo.
Trevor W. Rogers, AIA, 3491 Delaware Avenue, Kenmore, N. Y.
Alonzo J. Harriman, AIA, 292 Court Street, Auburn, Maine

(Terms expire 1962)
Middle Atlantic District
Great Lakes District
Gulf States District
Northwest District
South Atlantic District

Daniel A. Hopper, Jr., AIA, 1000 Springfield Ave., Irvington, N. J.
Linn Smith, AIA, 894 South Adams Rd., Birmingham, Mich.
*Clinton E. Brush, III, AIA, 1719 West End Ave., Nashville, Tenn.
Harry C. Weller, AIA, Washington State College, Pullman, Wash.
Arthur Gould Odell, Jr., FAIA, 102 West Trade St., Charlotte, N. C.

(Terms expire 1963)
Central States District
Florida District
California District
Texas District

Oswald H. Thorson, AIA, 219 Waterloo Bldg., Waterloo, Iowa
Robert M. Little, FAIA, 2180 Brickell Ave., Miami, Florida
Malcolm D. Reynolds, FAIA, 916 Kearny St., San Francisco, Calif.
**Reginald Roberts, AIA, 2600 N. McCullough Ave., San Antonio, Texas
*Member of the Executive Committee of The Board
**Alternate Member, Executive Committee of The Board

HEADQUARTERS

1735 NEW YORK AVENUE, N.W., WASHINGTON 6, D. C.

Executive Director
Secretary to the Executive Director
Legal Counsel

Edmund R. Purves, FAIA
Mabel Day
Samuel Spencer

Director, Staff Administration
Comptroller
Membership
Personnel
Purchasing Agent

J. Winfield Rankin, Honorary AIA
William G. Wolverton
Florence H. Gervais
Jane Dougherty
Marvin Mayeux

Director, Public Affairs
Editor of the Journal
Assistant Editor of the Journal
Public Information
Professional Affairs
Art Director
Art Assistant
Exhibit Services

Edmund R. Purves, FAIA (Acting)
Joseph Watterson, AIA
N. Carl Barefoot, Jr.
Wolf Von Eckardt
Polly Shackleton
Wolf Von Eckardt
Marilyn Smoot
Alice Graeme Korff

Director, Member Services
Building Information Services
Chapter and Student Affairs

Theodore W. Dominick, AIA
Theodore W. Dominick, AIA (Acting)

Education
Historian
Librarian

Henry H. Saylor, FAIA

George E. Pettengill

Clinton H. Cowgill, FAIA

Eric Pawley, AIA

Theodore Irving Coe, FAIA

William Stanley Parker, FAIA

Office Practice Procedure

Research Secretary

Technical Secretary

Consultant on Contract Procedures



COMMONS CAFETERIA, COMO PARK JR. HIGH SCHOOL, ST. PAUL, MINN. • PHOTO: WARREN REYNOLDS, INFINITY, INC., MINNEAPOLIS
ARCHITECTS: HAARSTICK LUNDGREN AND ASSOCIATES, INC.

School Master: Timeless Terrazzo

What's harder on a floor than adolescents? Answer: Hungry adolescents. The architect who specified Terrazzo and Mosaic for the school cafeteria shown above demonstrated knowledge of both material and *homo sapiens*.

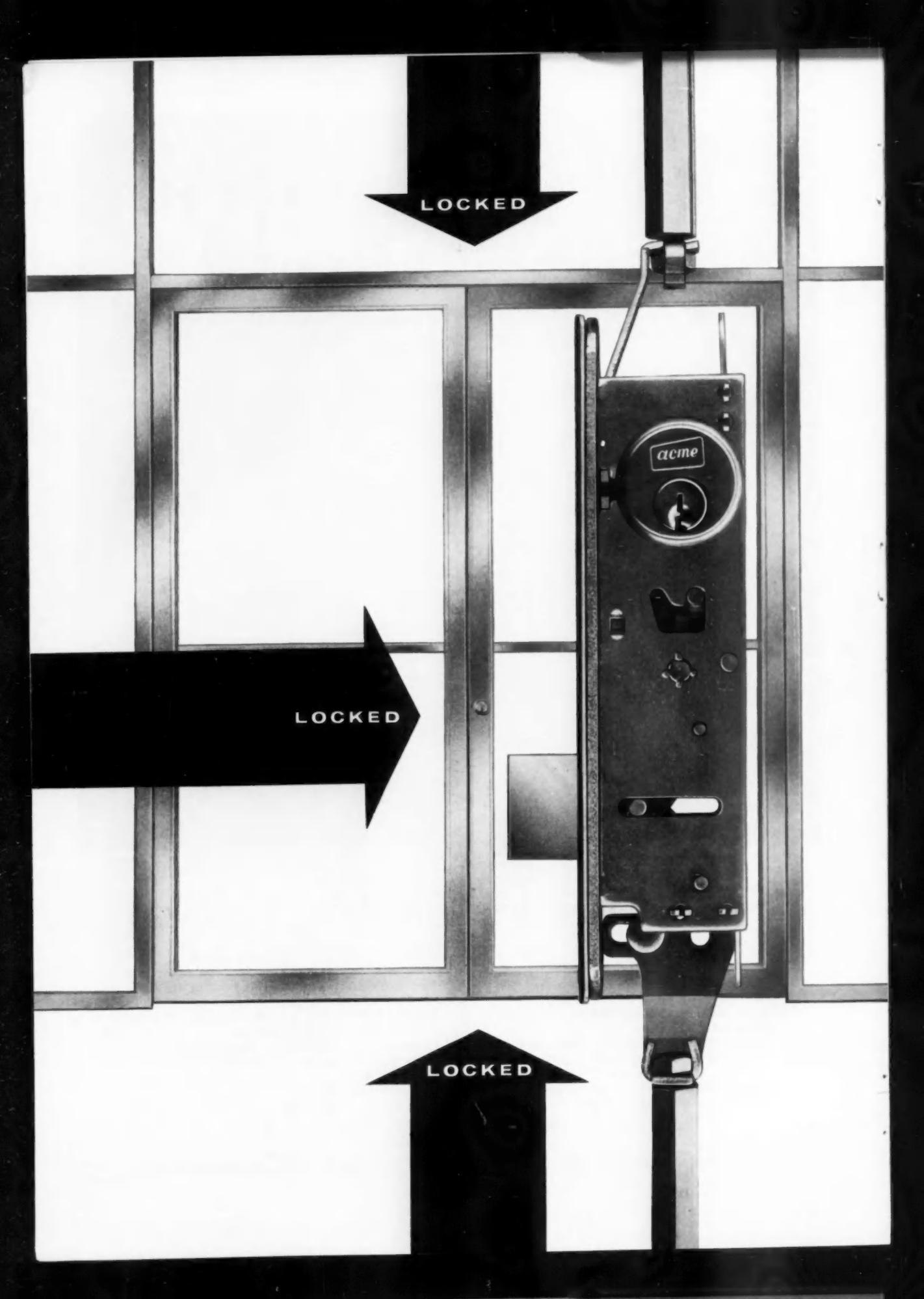
Lunch hours—and classes—come and go. But Terrazzo goes on and on. It withstands wear because it's made of marble (70% or more) and portland cement (30% or less). Maintenance and cleaning are minimized because dirt and bacteria

can't get a foothold in the smooth, jointless surface. Painting, refinishing, waxing and buffing are eliminated. Wet cleaning alone keeps Terrazzo floors brilliant and lustrous, with the fine light-reflecting qualities so important in schools.

Terrazzo is available for floors, ramps, stairs, walls and wainscots. For detailed information, write the Association. Free AIA kit upon request. National field service association representatives available for consultation. Catalogued in Sweet's.

Member Producers' Council

THE NATIONAL TERRAZZO AND MOSAIC ASSN. • 2000 K St., N.W., Washington 5, D.C.



LOCKED

A black and white photograph of a double door lock assembly. The doors are made of glass with metal frames. On the right door, there is a dark, rectangular lock mechanism with a circular keyhole labeled 'acme'. A metal strap is attached to the top of the lock. Three black arrows point downwards from the top of the image, each containing the word 'LOCKED' in white capital letters. The top arrow points to the top of the right door, the middle arrow points to the middle of the right door, and the bottom arrow points to the bottom of the right door. The left door is mostly white and has a dark handle.

LOCKED

LOCKED

NEW!

**the first 3-point lock for narrow-stile doors...
total protection for commercial entrances with
the lock that everyone has been waiting for**

Acme Metal Molding Company is proud to be first in presenting this new and spectacular lock, the Jackson 3-Point. Pairs of doors now can be securely locked at the head, floor and center with the first and only lock to offer 3-point protection for narrow-stile doors.

With Acme design and engineering assistance, this lock has been carefully developed to reach standards of performance not available in any other narrow-stile lock.

3-POINT. In its major form, the Jackson 3-Point gives narrow-stile doors, particularly pairs of doors, the full protection they have hitherto lacked. One smooth turn of the key and the door is solidly locked top, bottom and center. Top and bottom rods are $\frac{1}{2}$ " hexagonal their full length, with ends containing hardened steel cores. No rattling or binding with these hefty rods, no more tripped burglar alarms due to

looseness at head. The center bolt, which projects a full $\frac{3}{4}$ " into the strike plate, is solid brass with hardened steel core. It measures $\frac{1}{8}$ " x $1\frac{1}{8}$ " in cross section, requiring only a neat and inconspicuous cutout.

2-POINT. The 2-point lock allows doors to lock at top and bottom without requiring unsightly strike holes in finished side walls.

1-POINT. Available also as a standard deadlock, with a full $\frac{3}{4}$ " throw.

These locks are interchangeable, as lock pocket and case are the same size for all. Despite the many advantages which place this quality lock far ahead of any competing lock, it is available as standard equipment on Acme doors at no additional cost. Mail the coupon to Acme Metal Molding Company for further information and prices.

ACME METAL MOLDING COMPANY 1023 South Los Angeles Street, Los Angeles 11, California • Richmond 9-3331



since 1907



Society of
Door Manufacturers

*Please send additional information and
prices on the Jackson 3-Point lock.*

Name

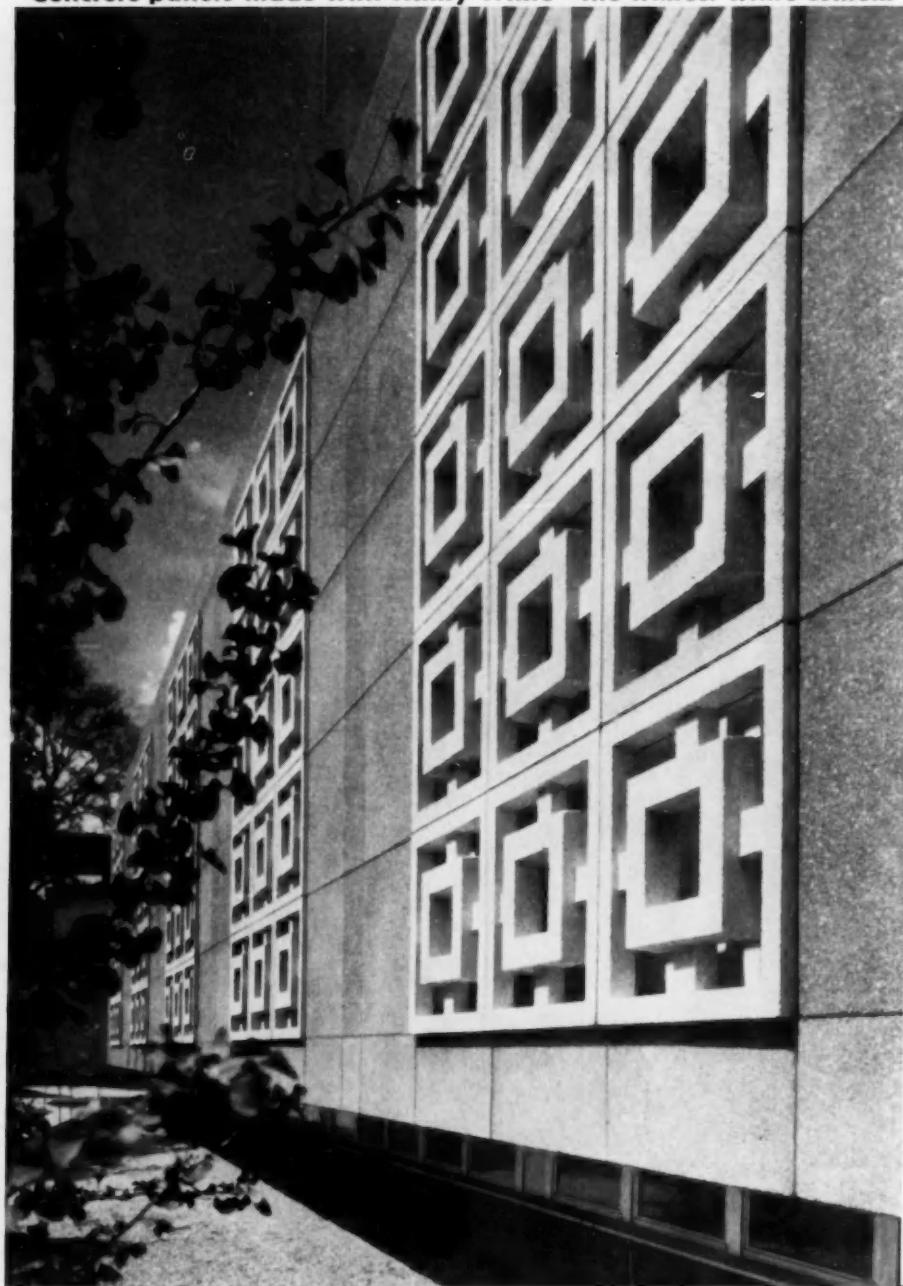
Company

Street

City

State

Concrete panels made with Trinity White—the whitest white cement



Building: Montgomery County (Ala.) Courthouse

Architects: Pearson, Title & Narrows

General Contractors: Bear Brothers Inc.

Panel Made by: Jackson (Miss.) Stone Co.

The white decorative panels were made with 100% Trinity White portland cement. The darker panels were made by combining 50% Trinity White with 50% standard gray cement.

Trinity White
PORTLAND CEMENT

A product of GENERAL PORTLAND CEMENT CO.
CHICAGO • CHATTANOOGA • DALLAS • FORT WORTH
FREDONIA, KANSAS • HOUSTON • JACKSON, MICHIGAN
TAMPA • MIAMI • LOS ANGELES





electronic Rembrandt!

Whirling electrostatic atomizers at Weis apply enamel faster and more uniformly than could possibly be done by any human painter . . . living or dead. As parts move at a steady pace on the conveyor, an entire piece is coated with just the right amount of enamel for maximum beauty and durabil-

ity. Here the atmosphere, too, is controlled. Positive pressure and filtration eliminate all dust and lint that cause a "sandpaper" finish. Modern manufacturing methods and finishing processes are reasons why Weis toilet compartments and cabinet showers are specified for America's most important buildings. Your Weis representative will be happy to supply complete information, or send coupon below.



WEIS
TOILET
COMPARTMENTS
AND CABINET
SHOWERS



HENRY WEIS MANUFACTURING CO., INC.
Dep. K-1303, Elkhart, Indiana
Please send information on Weis toilet compartments and cabinet showers.

name _____

firm/school _____

address _____

city, state _____

What is the function of Armstrong Acoustical Fire Guard Tile in a time-design-rated assembly?

Armstrong Acoustical Fire Guard is the first time-design-rated acoustical ceiling tile. It has been tested in a number of different floor-ceiling assemblies. Both the tile and the assemblies have received time-design ratings from Underwriters' Laboratories, Inc., of one to four hours.

To earn a rating, the acoustical tile and its floor-ceiling assembly must do two things. First, they must resist the passage of heat. This is a function of the entire assembly—the tile, the concrete slab, the air space in the plenum chamber, and the structural steel supporting the slab.

Second, the floor-ceiling assembly must support a maximum load. This depends upon the structural steel supports. If they buckle, the assembly will cave in. The protection of these steel members is the function of the acoustical tile, and the acoustical tile alone. Only the tile stands between the intense heat and the structural steel.

Official assembly hourly ratings are established when the assembly fails on either count. Structural failure never has ended a test on Armstrong Acoustical Fire Guard. (This, in spite of the fact *unprotected* open web steel joists have buckled in the test chamber in seven minutes.)

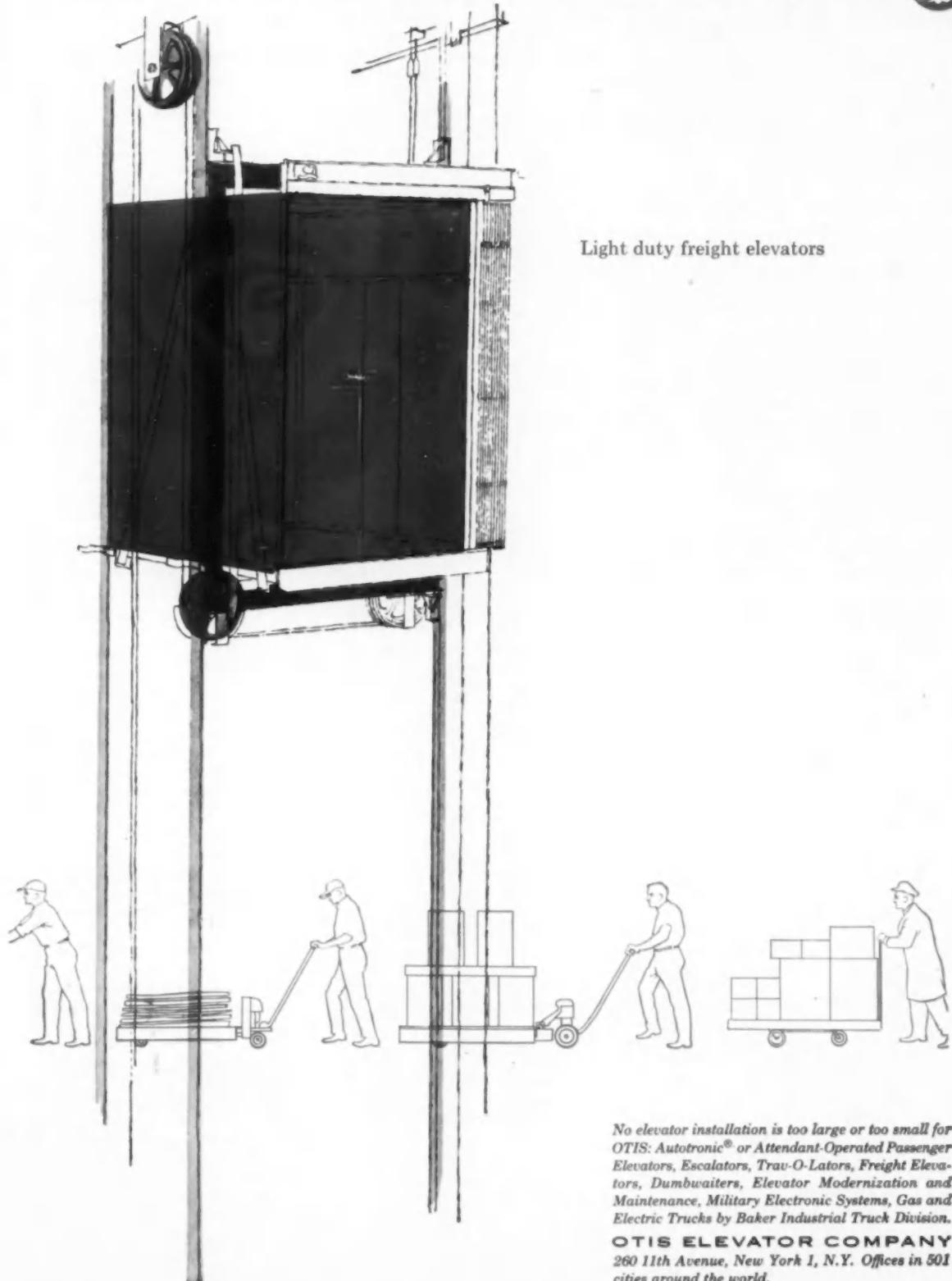
Tests on Acoustical Fire Guard always have been terminated because of temperature rise above the entire assembly. This factor could be improved with a thicker concrete slab. Variations from tested assemblies which will improve the fire-retardant rating obviously are permissible.

Before you specify your next ceiling, consider Armstrong Acoustical Fire Guard. It will help you give your client a safer building—often at a savings in cost. For more information, contact your Armstrong acoustical contractor or your nearest Armstrong district office. Or write to Armstrong Cork Company, 4207 Sage Street, Lancaster, Pennsylvania.

Armstrong ACOUSTICAL CEILINGS

1860-1960 Beginning our second century of progress

Outstanding value has made OTIS the accepted word for elevator quality in the U.S. and throughout the world.



Light duty freight elevators

No elevator installation is too large or too small for OTIS: Autotronic® or Attendant-Operated Passenger Elevators, Escalators, Trav-O-Lators, Freight Elevators, Dumbwaiters, Elevator Modernization and Maintenance, Military Electronic Systems, Gas and Electric Trucks by Baker Industrial Truck Division.

OTIS ELEVATOR COMPANY
260 11th Avenue, New York 1, N.Y. Offices in 501 cities around the world.



LETTERS

Re School of Architecture, 1984

EDITOR, *Journal of the AIA*:

Apparently Mr Taylor has not read Orwell's "1984" or has confused it with A. Huxley's "Brave New World" or more accurately with "We" of Zamiatkin.

I do agree that architectural education needs improving, and I agree with much of the mechanics recommended by Mr Taylor and in fact use them in my teaching. However, his notion of what architecture is about needs correcting.

1 Mr Taylor apparently really believes in the man-in-the-white coat. (MIWC who practices crenalsynth—the latter being an excellent example of the gobbledegook decried in the article.)

2 According to Mr Taylor, university means: "A place where scholars and researchers are advancing the frontiers of knowledge. The students are privileged to be there to participate in the quest and learn what they can."

This is incorrect. The Oxford Dictionary gives this human and reasonable definition: "The whole body of *students and teachers* pursuing at a particular place, the higher branches of learning." (My italics.)

3 "Taught in the place of drawing is some facility in assembling a montage of zip-a-tone modular grids." Thus Mr Taylor visualizes the architect of the future—I can only hope he's joking.

But Mr Taylor's notion of aesthetics, as given in the last section of his article, leads me to think he isn't—and this is my reason for writing. Mr Taylor confuses architecture with building technology. Such technology is the means—architecture consists of the application of these means. It is an art.

When he says the function of the profession is "to give maximum satisfaction . . . in terms of a total sense of well being . . ." he is talking the unfortunate language of 19th Century utilitarianism. (I think 19th Century aesthetics is not so bad.) The quickest way to get a "total sense of well being" is to drink three martinis on an empty stomach or get the white coated lad from the tranquilizer ad to provide a pill.

The aim of art is not this—Oedipus Rex doesn't do it, nor does the cathedral of Chartres.

4 Let us compare the picture of the student architect, 1984 style, who is the "big wheel on the campus" with the projection of that drunken, hopelessly individualistic gent, Louis Sullivan. "Really you make me smile," he said. "I don't know what imagination is any more than I know what electricity is. Imagination is the very soul itself. . . .

"The architect must be a clear and comprehensive thinker; he must have the mental grasp of things

spiritual and material, which shall provide him with the power to initiate, to supply that emotional impulse and that creative energy which result in a building. . . ."

PERCIVAL GOODMAN, FAIA
Associate Professor of Architecture
Columbia University

Re Percival Goodman's Letter

EDITOR, *Journal of the AIA*:

The piece was not written in imitation of or in the style of Orwell or Huxley or anybody else. The occasion was in 1959. Twenty-five years seemed to be a safe interval at which to focus the crystal ball. $1959 + 25 = 1984$; coincidence, really. The original title of the paper, used in the briefer version in the *Journal of Architectural Education*, was "The School of the Future." There is no reference in the article to Orwell; that was provided by the *AIA Journal* headline writer.

"What architecture is about." There are probably 13,431 other architects ready to disagree with both of us. (Current AIA membership: 13,433.)

Definition of a University

Academic freedom, of course, permits Professor Goodman to say that the late great President of Columbia, Nicholas "Miraculous" Butler was incorrect. I didn't invent the definition—I paraphrased what I myself heard Dr Butler say.

How much difference between "students there to participate in the quest" and "students and teachers pursuing—higher branches of learning?"

Architecture as an Art

I certainly do not confuse architecture with building technology, neither do I try to separate the inseparable. Building technology is the paint and canvas of the art of architecture. The medium of our art is not drawing or rendering.

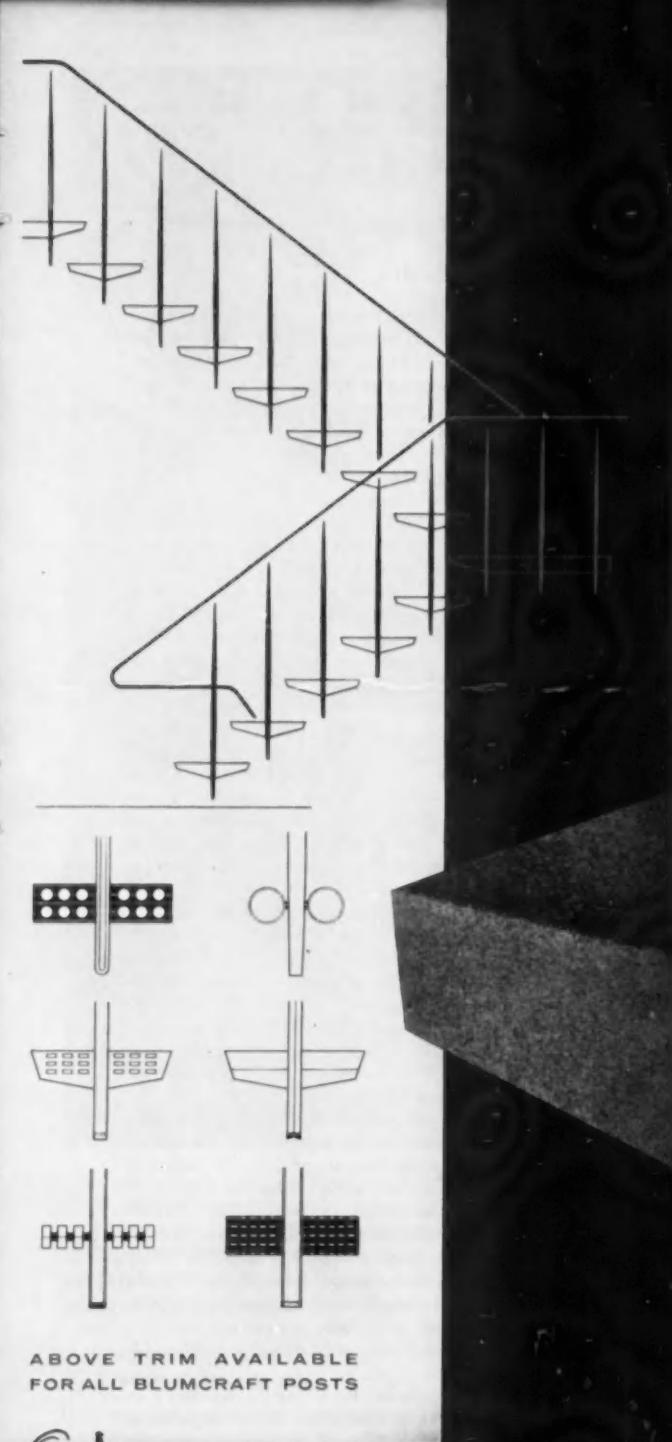
Let some other crystal-ball-gazers comment on this:

"—All intelligence can be thrown out of the discussion by an emotional appeal to the *art* of architecture which ignores the fact that very few architects are in fact good artists and that we are lucky there are as many as there are." JOHN E. BURCHARD¹

"Any notion that the total end of architecture lies in perfection in the design phase, or the construction, or any other phase alone, must give way to the concept of a student prepared to join with many professions and agencies for the uplifting of American physical and spiritual environment." HUGH STUBBINS.²

1 *Journal of Architectural Education* Autumn '59 p. 16

2 "The Challenge to Architectural Education" *Journal of Architectural Education* Autumn 1958, p. 17; *Journal of the AIA* Sept. 1958, p. 26



**NEW TREATMENT
FOR PRE-CAST TREADS
STAIR RAIL MOUNTINGS
WITH BUILT-IN STEEL
ANCHOR ASSEMBLY**



Blumcraft

OF PITTSBURGH

SEND FOR COMPLETE GENERAL CATALOG OF ALUMINUM RAILINGS AND GRILLS

COPYRIGHT 1960 BY BLUMCRAFT OF PITTSBURGH • • 460 MELWOOD ST., PITTSBURGH 13, PENNSYLVANIA

LETTERS

"We feel that the Schools of Architecture and the profession are inclined to glorify the "Designer" at the expense of the equally dedicated, equally important contributor, equally professional members of the total architectural profession, who specialize in the structural, mechanical, acoustical or electrical aspects of building, and that such hero worship is detrimental to the best interests of the total profession." Report of the Committee on the Profession.³

The New Esthetic Sense of Well-being

Prof. Goodman's procedure is of course one way, but it could not be used for most women and children nor at all hours of day and night for people gainfully and usefully employed.

"As the doctor is now developing the concept of treating the whole man, the architect is concerned with the whole environment of man. He can be the ecologist of man's surroundings. The public could come to think of architects whenever their environment is threatened or is to be modified. What other profession is concerned, trained and qualified?" Report of Committee on the Profession, p. 49.

The reference to Sullivan betrays one of the major fallacies of architectural education—trying to run a school for geniuses. The rare geniuses seem to have got along quite well with a year or less of formal higher education; witness Sullivan, Wright and Goodhue.

This serious problem has been much discussed at the Teachers' Seminars. Stubbins (at Nantucket) and John Burchard (at Grindstone) lead off discussion which recognized the "great gray area" of capable, intelligent students between the "dull clods" who are soon washed out, and the one or two percent "red-hot designers," the teachers' pets. Plainly the schools must prepare also the Adlers who will keep Sullivan alive and put his designs in shape to be built. Remember the question addressed to Mr Mead, "We all know about McKim and White. What do you do Mr Mead?" He is reported to have replied, "My job is to provide a payroll every Saturday morning and to try to keep McKim and White from making damn fools of themselves."

Are the Adlers and the Meads and the Fergusons and the John Merrills second-class citizens in our profession?

If the architectural profession, beginning with the schools, does not snap out of 19th century romanticism and really lead the building industry, buildings of the near future will be designed by industrial engineers, industrial designers and package dealers, and the architectural profession will evaporate out of the top of the ivory tower.

WALTER A. TAYLOR

Editor's note:

As of our date of issue Mr Taylor assumes new duties as Director of the School of Architecture, Ohio University, a school newly formed, replacing a department in the Fine Arts College and an architectural engineering department. He finds in the tradi-

tions, resources and policies of this university a climate favorable to his recommended changes in architectural education, in a small highly selective school.

Pandora's Jar Opened Again

EDITOR, *Journal of the AIA*:

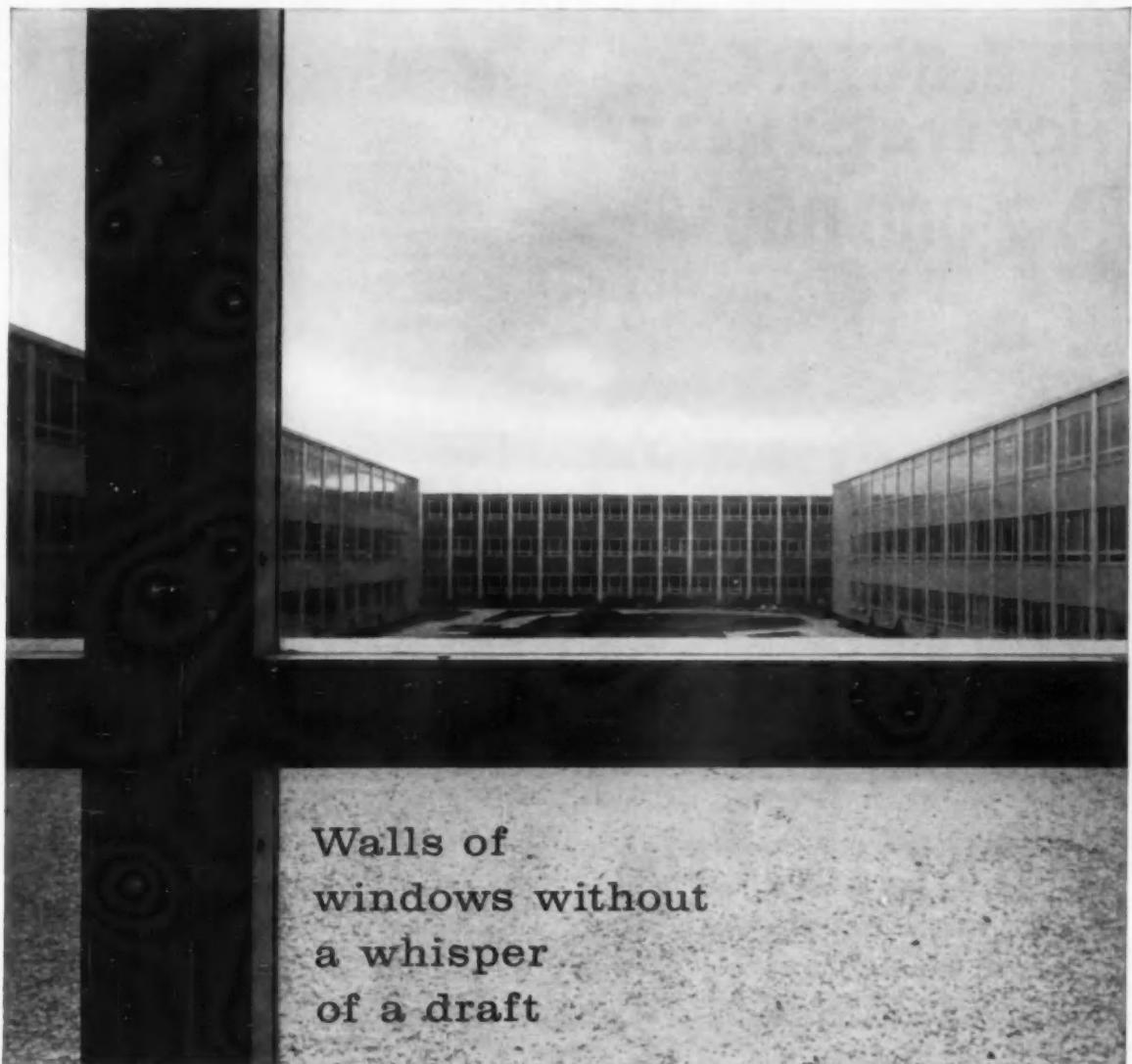
"Some Keys to Pandora's Jar," is a truly conceived contemporary title. An acanthus leaf cluster to the Dean of Humanities and Social Studies at M.I.T. for his classical perception. (Lock and key were known to the ancients; to be found mentioned in such antique sources as the Bible.) A pedant may take exception to the mixed metaphor; an Academician could wince. In broader sense, the word "key" as employed by the Dean obviously connotes the promise discovery, or at least exploration in his dealing with the subject of Architectural education.

The Dean offers some keys of his own, with which we may experiment. But, by classical definition, a Pandora's Jar is not something to be peeked into, or researched. It is an open and shut proposition. The original episode was one of the first acts of our western cultural forebears; the contents have been loose for sometime already. The Dean implies that Architects have in reserve a private Jar of troubles, yet to be sprung. Here the allusion becomes a little presumptuous. Upon calmer reflection, Architects' woes are far from alien to those of the entire community, despite the presence of "Art." Woes there certainly are, and noble efforts to ameliorate them must win praise, and deserve sober consideration.

The Dean feels that 75% of (registered) professional architects should be employed in banks, with the added precaution that they be barred from access to the real estate departments of such organizations. The void in taste and background exhibited by the bulk of our profession, the utter lack of genius and talent, ineptitude at perceiving, much less executing in the noblest traditions (or lack of same) of "creative design" (an academic ideal, flavored by the experimental achievements of the handful of leading practitioners) in such an appalling prospect to him, that he seeks some way to protect the innocent public from such woeful irresponsibility. His key: To reorganize the academic curriculum to channel the 75% "non-artists" into what he terms "professional" training. So—admittedly the schools today with their concern for design, leave something to be desired when it comes to professional training. Employers of young graduates are aware of their educational responsibilities, even if some cannot afford to assume them.

The trial-by-fire process, as it exists, starting with a minimum five year school followed by apprenticeship, leading to the hurdle of state professionally administered examination, and eventually to "professional" practice as a principal, is normally a ten year process. It is somewhat old-fashioned, and perhaps wasteful in terms of drop-outs. It does certainly test a man's endurance, it tempers youthful absurdities, and generally speaking only the dedicated fight through competitively. The man who at age 55 hangs

³ Report of the Committee on the Profession Jan. 25, 1960, p. 25 signed by Herbert Beckwith, Perry Johanson, Vincent Kling, Frank Slezak, Hugh Stubbins, Edmund Purves and James Hunter, Chairman (now AIA 2nd V.P.)



Walls of windows without a whisper of a draft

The windows in the new East High School in Rochester, N. Y., were chosen with *winter* in mind.

All projected and hopper ventilating windows contain Schlegel Woven Pile Weatherstripping. Schlegel's dense pile of soft wool fibres adjusts to all uneven surfaces—snugly cushions every window. Its resilience—a property not found in plastic or metal—assures a positive seal.

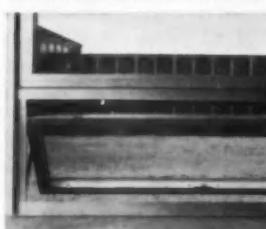
When subzero winds blow up a gale, not one of East High's 2200 students sits in a draft.

Cuts maintenance costs. Here's why you're sure of winter-proof windows when you specify windows with Schlegel Weatherstripping. Schlegel Woven Pile won't rust, crack, or rot. It is designed to last as long as the unit it seals.

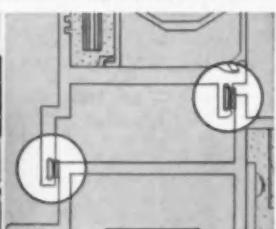
Dow Corning silicone treatment makes it extra water-resistant—locks out howling winds, driving rain, snow, and sleet.

For a list of manufacturers using Schlegel Weatherstripping, write for our new booklet, "Your Guide to Windows—Doors—Screens," or see our insert under "Windows-Screens" and "Doors-Screens" in the 1960 Sweet's Catalog File.

East High School, Rochester, N. Y., anticipates the city's population growth. Built to accommodate 3000 students. Architects: Faragher & Macomber.



All projected and hopper style windows are weatherstripped with Schlegel deep woven pile to insure a positive seal.



Drawing, courtesy of Adams & Westlake, showing application of Schlegel Woven Pile Weatherstripping.

for protection that's silent, smooth and sure

Schlegel 

WOVEN PILE WEATHERSTRIPPING

Schlegel Mfg. Co., P. O. Box 197, Rochester 1, N. Y. In Canada: Oakville, Ontario

ELECTRIC HOT WATER HEAT

TO 2,000 000 B.T.U.



PRECISION ELECTRIC HOT WATER HEATING BOILER

COMPLETE UNIT READY FOR INSTALLATION

with circulation hot water system and water chiller for year-round air-conditioning.

CONVERSION EASILY ACCOMPLISHED

where other type fuels now used. Suited for home, churches, motels, apartments, hotels, hospitals, commercial buildings, swimming pools, snow melting and domestic hot water. Temperature Range—60 to 250 degrees.

- Every unit tested and inspected 40,948 B.T.U. to 2,000,000 B.T.U. Output.
- All Boilers meet the requirements of the ASME Boiler and Pressure Vessel Code.

No Chimney! No odors! No flame! No ducts! No Noise!



Write for complete
specifications and prices

PRECISION parts
corporation

400-AIA NORTH FIRST STREET
NASHVILLE 7, TENNESSEE

LETTERS

out his shingle to be of service to the community, is reasonably worthy of his trust. The role played by Schools of Design, coming as they do at the start of the procedure, is not so far out of line in attempting to familiarize neophytes with the tools and prevalent ideals and concepts of design, which we all agree is fundamental to architectural thinking, but which we know is only a facet of the professional practice of architecture.

Almost unnoticed among the Dean's keys, lies a master one; the splitting off in third year of school the obviously "great" designers, and mustering these as a group into an "elite." The Dean can suggest this, all the while protesting that such inequity between the artists and their lesser accomplished mates exists already. This is news to me. The remaining clods will become professional technicians to serve this "elite" design group. The whole profession will thus be screened and organized (on the basis of I.Q. tests for taste, and ability to design what professor likes) safely within the ivory-towered confines of school, controlled by Deans of Humanities, marshalled and sent forth by them as a harmonious team operating with dictatorial precision to provide the uncomplaining public with the Dean's version of a well-planned environment. The concept is neither professional nor humanistic, and has all the earmarks of totalitarian intellectual and economic minority, domination from which we in America have managed to remain relatively free.

The property called "talent" or "genius" which the Dean seeks to discover and nourish is, of course, close to the heart of every professional manager. I submit that genius, by definition a unique spark, will burst far above the surface of its own accord, substantially unaffected by the motherly concern of lesser men.

The professional educational philosopher, the pseudo-humanist, the self-appointed cultural manager of contemporary theory, cure-alls and shortcuts to learning, with all his system and organizational energy, is as dogmatic and far-removed from realities as any Academician to whom he pays such crude lip-service.

M. D. DEN HARTOG, AIA
Boston, Mass.

For Better And Worse

EDITOR, *Journal of the AIA*:

I enjoyed your special page in the recent issue and your term "disposable container architecture" referring to the megahyline group. I take issue with you, however, when you say that "buildings are better functionally" than they were, for in the case of office buildings I do not think that low ceilings, too much light (that has to be shut out), lack of natural fresh air, or — in planning — the impossibility of finding your way without reading a sign make the structures any more functional than streamlined automobiles you can't get in or out of — and they certainly do not look as well.

EDWARD STEESE, AIA
Scarsdale, N. Y.



Trowel points to Wide Flange Rapid Control Joint, a companion product used with Dur-o-wal

Two sure ways to better block construction

Dur-o-wal Reinforcement—Wide Flange Rapid Control Joint

More and more, architects and engineers are specifying this combination to assure permanent masonry wall construction.

Dur-o-wal Reinforcement, fabricated from high tensile steel with deformed rods, lays straight in the mortar joints with all of the steel in tension and working together as a truss. This is the basic engineering principle that makes for maximum flexural strength.

And the Rapid Control Joint, with its wide neoprene flanges, automatically assures the flexibility that lets a wall "breathe" under various natural stresses, provides a tight weather seal with minimum caulking.

For technical data, write to any of the Dur-o-wal locations below. Over 8000 dealers across the country are ready to serve you. See us in Sweet's.

DUR-O-WAL®

Masonry Wall Reinforcement and Rapid Control Joint

RIGID BACKBONE OF STEEL FOR EVERY MASONRY WALL

Dur-O-wal Div., Cedar Rapids Block Co., **CEDAR RAPIDS, IA.** Dur-O-wal Prod., Inc., Box 628, **SYRACUSE, N.Y.** Dur-O-wal Div., Frontier Mfg. Co., Box 49, **PHOENIX, ARIZ.** Dur-O-wal Prod., Inc., 4500 E. Lombard St., **BALTIMORE, MD.** Dur-O-wal of Ill., 119 N. River St., **AURORA, ILL.** Dur-O-wal Prod. of Ala., Inc., Box 5446, **BIRMINGHAM, ALA.** Dur-O-wal of Colorado, 29th and Court St., **PUEBLO, COLO.** Dur-O-wal Inc., 165 Utah Street, **TOLEDO, OHIO**





NEWS

Sixth Annual Architect's Tour of Japan

With the time and money, an architect can just about choose any place in the world he wants to visit, then look around and find a tour made up of his fellow-workers. This one goes to Japan.

For twenty-four days the architect will tour Japan, visiting all buildings of architectural significance. In addition, there are conferences arranged with Japanese architects, visits to Japanese shrines and the famous Japanese gardens. One of the many attractive features will be a cruise through the famed Inland Sea of Japan.

Only twenty-five can be accepted for the tour, so early registration is required. Descriptive information may be obtained from Kenneth M. Nishimoto, AIA, 263 South Los Robles Avenue, Pasadena, California.

Exhibits at the Octagon Gallery

The Institute's Octagon Gallery, a popular "tourist" spot for visiting architects and sightseers, has announced the following exhibitions for the remainder of the year:

July 1-September 4: South-west Washington Waterfront Designs

September 16-October 9: AIA Honor Awards

October 20-November 27: The Architecture of Sweden

December 8-January 8: Brasilia—A New Capital for Brazil

Names in the News

Mrs Vanderbilt Webb, founder and Chairman of the Board of the American Craftsmen's Council of New York, has been awarded an honorary degree of Doctor of Fine Arts by the California College of Arts and Crafts. Mrs Webb also delivered the keynote address at the commencement . . . *Robert R. Garvey, Jr.*, of Winston-Salem, N.C., has been appointed to the post of Executive Director of the National Trust for Historic Preservation . . . *Harry Clay Bates*, President of the Bricklayers, Masons and Plasterers International Union of America, has retired. He is succeeded by *John J. Murphy*, former Secretary of the Union . . . *Louis I. Kahn*, Professor of Architecture in the School of Fine Arts of the University of Penn-

sylvania, has been awarded the Arnold Brunner prize of the National Institute of Arts and Letters. He is the sixth man to receive the \$1,000 award, made this year in recognition of architectural achievement . . . *Burnham Kelly*, Associate Professor at Massachusetts Institute of Technology and a panelist at the recent AIA convention in San Francisco, has been named Dean of the College of Architecture of Cornell University . . . *Harmon H. Goldstone* of the New York AIA Chapter has been elected President of the Municipal Art Society of New York. Elected also by the Board of Directors of the Society were *Edward Larrabee Barnes, AIA*, and *Charles Magruder*, Managing Editor of *Progressive Architecture*.

Ceramic Art in Architecture Competition

A competition for the use of ceramic art in architecture has been announced in connection with the twenty-first Ceramic National Exhibition opening November 13 and continuing through December in Syracuse, N. Y.

Work entered must be designed as an integral part of a building, and entries are to consist of photographic records (including 2 x 2 transparencies) of finished installations. Work in progress over the past three years is eligible.

A prize of one hundred dollars will be awarded for the best ceramic sculpture and a like amount will be awarded for enamels.

Complete information may be obtained from the Everson Museum, Syracuse, New York. Deadline is September 1.

Taylor Accepts New Post

Walter A. Taylor, Director of Education and Research for the Institute since 1946, has resigned to become Director of a new School of Architecture in the College of Fine Arts at Ohio University this fall.

A well-known figure in the field of architecture, Mr Taylor was in private practice for twenty-three years. He has designed buildings in twenty-four states and seven foreign countries. In 1957 he was advanced to the rank of Fellow of the Institute.

While in private practice, Mr Taylor taught part-time for eight years at Columbia University.

Specify Floor Maintenance to Insure **CONTINUING** Beauty of your Interiors

After you have specified flooring, its final clean-up and initial treatment, go one step further: **Specify proper continuing care.**

After building acceptance, proper maintenance will display your floors effectively, help set off and complement your interior design - through years of wear.

For the beautiful floor below, there was no "or equal".

Let us prepare for you a manual on the care of the floors you specify. Your client will appreciate this added architect specified maintenance service and you'll like the way flooring complaints will be eliminated.

- Over 160 Hillyard trained floor treatment experts are located throughout the United States.

- There's one near you who will, at your request, survey your finished floors, determine traffic and soil loads for the various floors and recommend proper maintenance procedures. A complete manual for floor care will be individually compiled for every floor you specify.

- Write for the name of your nearest Hillyard "Maintainer" who can provide this free service. District offices listed in Sweet's Architectural File.

Approved by the
Maple Flooring
Manufacturers Assn.
Listed by



classified as to
slip resistance.

Bloomfield Hills Junior High School, Bloomfield Hills, Michigan



Write too for FREE Hillyard A. I. A.
Numbered Files - practical treating
guides, one for each type of flooring.

WHETHER TERRAZZO, WOOD, CONCRETE, CERAMIC TILE or RESILIENT FLOORS



H I L L Y A R D
Passaic N. J. ST. JOSEPH, MO. San Jose, Calif.



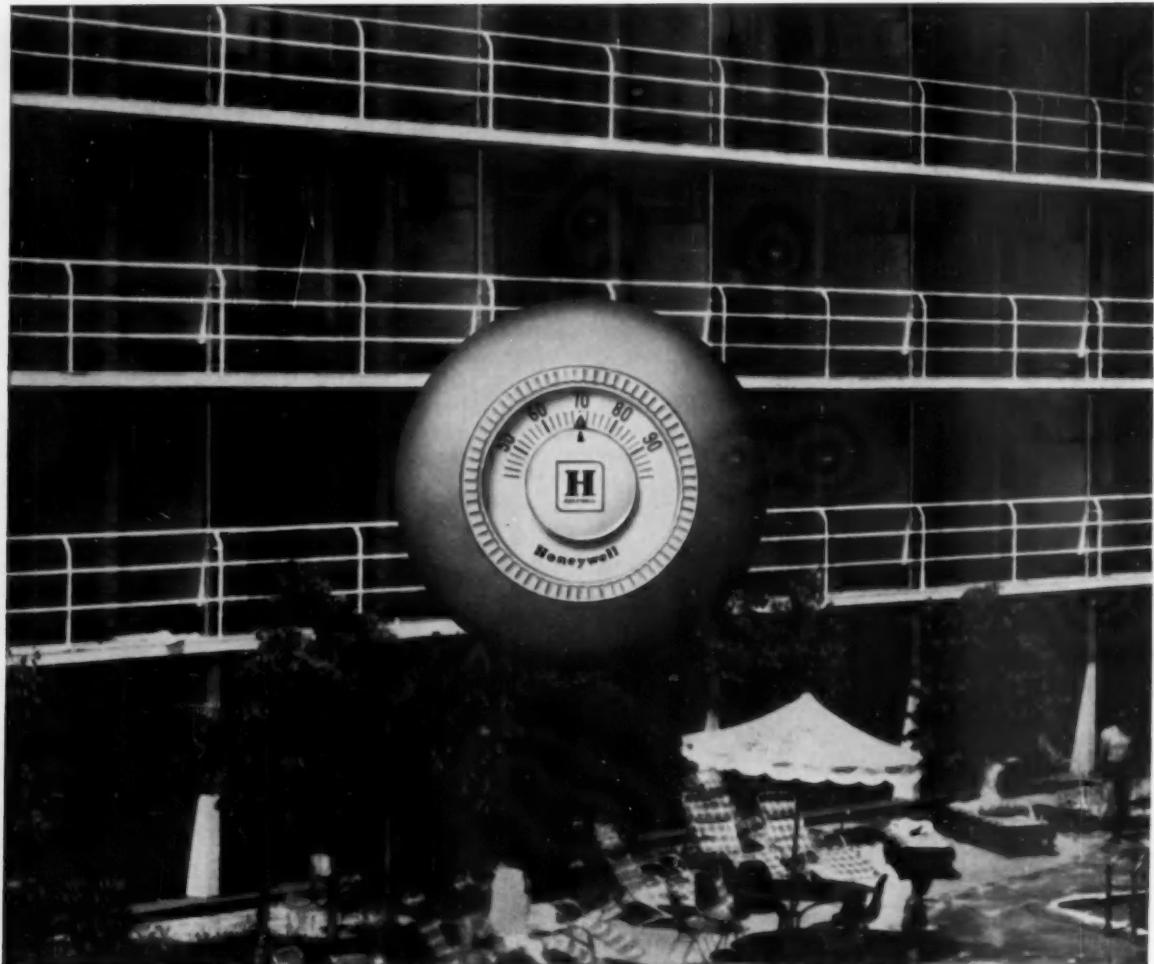
You'll Finish Ahead
with

HILLYARD

Branches and Warehouse Stocks in Principal Cities

CONTROL:

first step to
comfort



Marriott Key Bridge Motor Hotel, five minutes from Washington, D.C.

Architects: Carlos B. Schoeppl and Robert Karl Frese, AIA. General Contractor: Victor R. Beauchamp Assoc. Inc. Mechanical Contractor: W. G. Cornell Co. of Wash., Inc. Engineer: J. E. Curley.

Only precise control of indoor comfort makes space truly usable. That's why it's so important to integrate good design and comfort control right from the start in any type of building. You can depend on Honeywell to help your engineer specify the best system for each

of your clients' particular needs. You'll find that Honeywell's 75 years of leadership in temperature control will go far toward assuring client satisfaction. Call your nearest Honeywell office, or write Minneapolis-Honeywell, Dept. JA-5-71, Minneapolis 8, Minnesota.

Honeywell
First in Control
HONEYWELL
SINCE 1885



See us in Sweet's 1960 Architectural File, Section 30 D | MI

He also taught at Central China University, while serving as resident architect and engineer in Wu-chang, China, from 1924 to 1927. Before joining the Institute he was Professor of Architecture at Syracuse University for seven years.

Author of many articles, editorials and book reviews, Mr Taylor has contributed to eight major books in the field of architecture. His most recent article, "The School of Architecture—1984" appeared in the May issue of the *Journal*.

Gift from Australia

Architect Robin Boyd, a partner in the firm of Grounds, Romberg and Boyd of Melbourne, Australia, has presented a gift of \$25 to the Institute through the US Information Agency. The Agency offered the money to Mr Boyd as a token payment for English and translation rights to his article, "The Counter-Revolution in Architecture," which appeared in the September 1959 issue of *Harper's Magazine*. In declining the gift, Mr Boyd wrote the Information Agency, "I would like the token payment to be made, not to me, but to the public relations fund of The American Institute of Architects who have been very kind to me."

University of Florida

The College of Architecture and Fine Arts, University of Florida, has received seven volumes of plates of plans and illustrations of historic and modern buildings in England as a gift from Horace H. Laws, ARIBA, of Maidstone, Kent, Great Britain. The collection is significant as a valuable record of the buildings covered and as an indication of the interests and tastes of three generations of British architects during the past century.

Your Help Needed

In the near future, there will be published in the *Journal* an article on Correctional Buildings. In order that mention may be made of the most recent examples of lock-ups, jails, prisons, reformatories and penitentiaries, please send to the Editor brief descriptions of any buildings of these types you have designed within the past ten years. If convenient, you may also send whatever illustrations you may have, and indicate additional photographs and drawings you would be willing to send for publication in connection with this article.



Successful use of this finish requires aggregates on which architects may rely for color, structural and bonding strength and, for impermeability.

The cost of the exposed aggregate is but a small percentage of the cost per square foot of the finished product. Still, it is important in specifying exposed aggregates, to specify clearly what aggregates the architect is entitled to have used in the work.

Colonna and Company of Colorado has been crushing Suprema Aggregates in the heart of the Colorado Rockies for 25 years. For the past 7 years it has specialized in crushing the following:

*Suprema Flamingo Quartz
Suprema Siskin Green
Suprema Black Obsidian
Suprema Milky White
Suprema Blue Granite
Suprema Pink Granite
Suprema Light Gray Granite*

Recent installations in which Suprema Exposed Aggregates have been used are:

Brown Palace—West Hotel, Denver, Colorado
Architect: William B. Tabler, New York, New York
Mfg. by: Otto Buehner and Co., Salt Lake City, Utah

Southland Center, Dallas, Texas
Architect: Welton Becket and Associates, Los Angeles, Cal.
Mfg. by: Wailes Pre-Cast Concrete Corp., Sun Valley, Cal.
Wayne State University, College of Education, Detroit, Mich.
Architect: Minoru Yamasaki & Associates, Birmingham, Mich.
Mfg. by: Aggregate Surfaces, Inc., Dearborn, Mich.

For further information and samples, write to:

COLONNA & COMPANY OF COLORADO, INC.
CANON CITY, COLORADO

Since

HOPE'S CHURCH WINDOWS

1818

STEEL WINDOWS HAVE THE STRENGTH AND RIGIDITY THAT NO OTHER WINDOW CAN MATCH



ST. PETER'S LUTHERAN CHURCH, EDINA, MINNESOTA

Ralph Rapson, A. I. A., Architect

J. L. Crouse, Contractor

In this church the auditorium is octagonal, the congregation seated on all sides of the altar. Above, the eight large gable windows give the feeling of space within and a gem-like quality to the exterior.

The engineering of the gable windows was complicated by the decision to have them incline inward from the vertical to obtain exactly the effect desired. The windows are custom built to most carefully prepared plans and specifications. Engineers at Hope's worked closely with the architect in the structural design.

The building also has large wall areas using Hope's custom rolled-steel sub-frames with Hope's Heavy Inter-

mediate Projected Windows, glass and insulated panels. In still other locations Hope's pressed-steel sub-frames hold glass and doors.

Such a building benefits especially from the availability, in Hope's Engineering Department, of a large, trained staff, thoroughly experienced because it is a permanent organization, continuously occupied with the problems of fenestration of important buildings in all architectural styles, traditional and modern. The lasting quality and the satisfaction given by Hope's Windows come also from the skill of experienced craftsmen working with the best materials.

Write for Bulletin No. 152

HOPE'S WINDOWS, INC., Jamestown, N. Y.

HOPE'S WINDOWS ARE MADE IN AMERICA BY AMERICAN WORKMEN

Centering the Arts

BY JACQUES BARZUN

*Dean of Faculties
and Provost of
Columbia University;
author of
"The House of Intellect."*

Reprinted by permission of
the *Columbia University Forum*,
Winter issue 1960

► Though not as yet recorded in the census, the multiplication of art centers throughout the country is an awe-inspiring fact. The name and the thing are now found on every hand. But what is it? There is an "art center" on a busy New York thoroughfare not far from where I live, which is a shop that sells frames, pigments and inexpensive reproductions of the masters. In New England, art centers are often cooperative undertakings to exhibit local painters during the summer months. At colleges and universities, art centers may be simply buildings housing the study of one or more of the arts, or they may resemble the many city museums that now entice the public with paintings, music, motion pictures and plays. Still more ambitious, the Lincoln Center in New York is to be a kind of vast emporium for the arts and so is the center projected in Washington.

Whatever may go on in an art center, its existence testifies to the reality of a deep cultural change in American life. Indeed, it is a revolution. The arts are no longer the pastime or delectation of a very few. Professional artists are growing in number and in public esteem; amateur performers of every kind number tens of thousands, and these mingle with a still larger number of viewers and listeners, who crowd the museums, throng the concerts and support the large industries of recordings, reproductions and art books.

But what is decisive is that public opinion has accepted the arts as a part of normal life. The old taint of specialness or effeminacy is gone; official attention goes to our cultural output, just as public funds go to the support of museums, symphony halls and "centers." And there the people expect to form new tastes or cultivate old ones. The city fathers are sensitive to the new demand—witness in New York City the battle over "free" Shakespeare, which aroused more passion than the dis-

covery of fraud in the sale and inspection of meat. Clearest of symptoms, the young in college and outside now live and think under the powerful influence of art. They sing and play and paint, with no thought but the pleasure and virtue of the activity itself. As careers for virtuosos become harsher—more competitive and less prosperous within the closed shop of organized bookings—art finds its true life in the doings of what I have elsewhere called the disciplined amateur.

All this suggests that if the surge of popular interest in the several arts is not to lower quality, and also divide the artistic minority into mutually indifferent sects, the "centers" that we hear and read so much about must be the unifiers their name implies. Their task is to strengthen and to polish the bursting talents and eager audiences.

It follows that we really need two kinds of art centers—centers of artistic performance and centers of artistic education. It might at first seem as if the two should be identical: Is not the best artistic education provided by first-class performance? Yes and no. Performance is not an independent act. First-class work will be done only when it is desired by an audience able to recognize it. And recognition implies previous knowledge. Audiences (like the directors and managers of performance) must have been taught. Native taste will guide the gifted, but it cannot impart to them the theory, history, criticism, and philosophy of an art, which are prerequisite to wanting its best manifestations. What the country needs at this stage of its artistic fervor is an audience other than the haphazardly self-taught, and this implies leaders who combine an understanding of art in general with a professional capacity to perform or teach or direct in one of the arts in particular.

The place to do this teaching of audience and leaders is obviously the colleges and universities where so many students already show their zest for the fine arts. The first step, therefore, should be to enlarge the conception of the liberal arts to include—the arts. It should be possible for an undergraduate to elect one or more of the fine arts as he now does the social sciences or the humanities. Why not round out the present offering of theory with studio work? The pattern is furnished by the sciences, which not only permit but require laboratory work. These would then be pre-fine-arts freshmen on a par with pre-engineers; there would be fine-arts majors as devoted to their practical work as chemistry majors.

But just as the college which gives a liberal education to the future scientist, engineer, lawyer or physician differs from the technical school,

so the complete arts college should differ from the conservatory of music, the art school and the drama school. Anyone who wants to practice an instrument eight hours a day or paint from daylight to dark inevitably excludes himself from college. He must go to a technical school. Given a certain temperament, it may even be right that he should do this for the public good, though at the expense of his mind.

This contrast between the demonic virtuoso and the educated professional marks the difference between the two types of art centers I see as necessary. Again, in a town that contains the only artistic establishment within a radius of fifty miles, it is proper that an art center should devote itself to performance. Let the museum of art offer musical and theatrical evenings, vary its collection with traveling exhibits and lend its walls and auditorium to amateur groups—painters, musicians and actors. Such a center, quite often, will be found in a college town, at the college itself, where the interest in art is general and where the nucleus of professional talent is present as part of the faculty.

But in larger cities, and in the universities within or nearby, a division of labor is indicated. The university need not toil to feed the artistic appetites with amateur work, however improved. It can draw upon the city for the best examples of performance conceivable. It can also make use of the busy performers, from time to time, as visiting members of its teaching staff. Clearly, the university should concentrate on teaching, on education. Its art center should centralize knowledge and talent for the sake of those who may continue the tradition in one of many ways—as professional artists; as teachers of art; as directors of museums, art centers, festivals and galleries; as disciplined amateurs of a given art; as scholars of the history and theory of art; or simply—and perhaps most importantly—as intelligent members of the Great Audience.

That division of labor is the one that commends itself as desirable in New York City, where the Lincoln Center for the Performing Arts purposes to unite the highest artistic abilities for the widest audience, and where the Columbia University Arts Center purposes to give the highest artistic education to the widest constituency of students, graduate and undergraduate. Such specialization, to be sure, need not exclude all performance from the educational institution or all teaching from the performers'. Rather, the separation of functions affords each the greatest freedom to concentrate, knowing it can rely on the other.

One question remains: What is the right curriculum for a University Arts Center defined in these terms? The only fit answer is that given by a particular faculty in the light of its long experience of teaching the arts—an experience that does not brush aside the broad hints implicit in the new social and cultural situation of the country. There is both room and need for pioneering.

A bystander, for example, might hope for a more comprehensive interpretation of the term artist than has been common in any art school of the past. Certainly it is a paradox that literacy in more than one art has been deemed impossible in the schools, while artists and critics assume—nay, demand—that the educated public shall possess it. And in theatre, opera and much broadcasting, which call for the collaboration of several arts, it is notorious that specialization has long been a cause of anarchy, mutual hostility and consequent imperfection. For other reasons, too,

one longs to see the ideal of the Commonwealth of Art—which that great scholar, the late Curt Sachs, so eloquently preached at Columbia itself—no longer remain merely an applauded catchphrase, but become a little bit of a reality, say, by fashioning an opera manager who doesn't hate music or a composer who understands the workings of the theatre and even of the human voice.

But all these visions are the proper concern of curriculum makers, whose business it always is to frame visions and turn innovations into commonplace. For the moment, visions are subordinate to the great fact that after centuries of dependency and conventionality in the pursuit of art, the United States is developing, if not its own genius, at least its own characteristic institution for the fostering of art—the centers of education and performance to which a spontaneous demand has given form and function. ◀

CLIENTS, GOD BLESS 'EM!

My clients are lovable people;
Without such I couldn't exist.
But being intelligent persons,
Please tell me why did they persist
In taking advice from Aunt Minnie,
From the neighbor who lives up the street,
From the Smiths and the Browns and the Joneses,
From some stranger they happened to meet?

They interviewed scores of my colleagues;
They poked and pried into our past;
They checked every reference in detail,
Then settled upon me at last.
I thought they'd rely on my knowledge,
My taste and my expert advice;
All my drawings were pearls of perfection,
And the documents clear and precise.

Did they listen to me? Don't be foolish!
Cousin John said, "Relocate the stair!"
Of course the poor sap couldn't figure
My reason for putting it there.
And my chaste and elegant entrance!
The milkman convinced them that they
Should have one exactly like Dokeses;
He told them my style is passé!

Now why, when they shelled out good money
To pay a fine Architect's fee,
Did they listen to all those exhorters,
Advising a mad pot-pourri
Of items that simply won't function?
The result is a gosh-awful mess,
Instead of my gen of perfection.
But I love 'em, yes, never-the-less!



THE ECOLE DES BEAUX ARTS

A Light-hearted View

BY JOHN AGUIRRE, AIA

► The good old days of architecture still exist in musty old buildings along the Seine. Architecture as a fine art and as a profession for gentlemen flourishes there among the plaster casts of Doric capitals and bereted students in the ateliers. Architecture, the business of fine draftsmanship, careful rendering and parchment stretches, has holed up at the Beaux Arts.

Equipped with twenty words of French, a new diploma from Harvard and the GI Bill, I decided that a year at the Beaux Arts would be a nice olive in my education cocktail. Entering the Beaux Arts is not simple. First, it is necessary to find the place. The school meanders along the Seine for a mile or so. To find the French equivalent of a registrar requires a minimum half-day of diligent detective work. Once the registrar is found, the game of registering begins. First, you are informed, they will only accept graduate students if you are a foreigner and you must be able to give proof. You are then asked why you wish to enroll when you speak French so poorly? You carefully explain that you had already enrolled by mail, that they had all of your papers and you felt your French was adequate. This statement only gets you a hard look. The clerks then scurry around for an hour searching for your papers and later report that they could not

find your enrollment and no one has ever heard of you. Eventually, however, you are allowed to register. The registrar reports that now you must be accepted by an atelier to complete your enrollment. The French atelier is a voluntary group or club of architectural students who unite to follow and study under a particular architect whose style they admire. The students thus select their own professor or *maître* and he in return teaches them the American equivalent of a lab course. I chose the atelier of André Leconte for two reasons: He liked Americans and he spoke excellent English. Monsieur Leconte, after accepting me, shook hands and told me to report to the atelier.

Bedlam would not describe the first day in the studio. The students were singing choruses from three different obscene songs simultaneously. Some students were busily doing chin-ups on the gas pipes, others were dancing on top of the drafting tables, while other students swatted them with T-squares or sprayed them with India ink. Several students were singing songs that explained they were dirty "blacklegs" unworthy to be architects and discussed their illegitimacy. Later that day, I discovered that the singing and dancing students were freshmen who were being given their daily quota of humiliation. (Continued on page 31)

A light-hearted account of life at the Ecole

*by a recent graduate who, armed with a Harvard diploma, the GI Bill and
an English-French dictionary, tackled the best France offers*



THE ECOLE DES BEAUX ARTS

A Serious Study

BY JOHN C. B. MOORE, FAIA

► The subject of this discussion is the academic tradition in architecture in its relation to the Ecole des Beaux Arts in Paris from about 1900 to the present time.

For the sake of clarity it may be helpful to define certain relationships at the outset. The Ecole des Beaux Arts, as it is now constituted, offers instruction in architecture, painting, sculpture and the metallic arts. It is an independent school of art not connected with any other academic institution. It is under direct supervision of the State through the Ministère de l'Instruction Publique et des Beaux Arts. Distinct from this is the Académie des Beaux Arts, composed of senior artists and professionals; it has no direct relationship to the Ministry, its self-perpetuating members are in a sense trustees for instruction in the arts which thus come under their supervision and guidance. The Académie des Beaux Arts is in turn one of the several academies, literary and professional, which compose the Institut de France. In our attempt to analyze the academic tradition at the Ecole des Beaux Arts, remarks will be confined to its Section of Architecture in Paris. In accordance with frequent usage this will hereafter be referred to as the "School." It should be noted that with the recent need for expansion of facilities, and in the hope of over-

coming too great centralization, branches of it have been established in some of the major cities of the provinces.

We turn now to the academic tradition and its effect upon the School in recent years. This tradition seems to me to have two aspects which, through a long history, have generally run parallel to one another, but more recently have tended to diverge and oppose one another. It is this situation which is of particular interest to us.

One aspect of the tradition at the School stems directly from the influence of the architect members of the Académie des Beaux Arts, six in number. As seniors in the profession they have tended to dominate the instruction and have shaped it from within, handing down quite naturally from one generation to another an inherited tradition. In considering the effect of this we shall examine the organization of the School, the nature of the training offered there, and some of its merits and defects.

The other aspect of the tradition is external to the School. It is established by the mode of architectural expression current in France at any given period. At the beginning of the epoch we are considering, this expression was strongly classical and traditional. It had progressed slowly from the exuberant individuality of the Baroque

*A serious study of the method and traditions
of teaching at the Ecole from 1900 to the present time, and an appraisal
of the school's position in the world of architecture today*

period to a revival of classicism in which the Renaissance tradition was strong. Other elements had exerted their influence as well, including the expanding knowledge of classical archaeology and the characteristic French love of reason. Even the romantic period, represented among French architects chiefly by Viollet-le-Duc, did not deflect this trend to any great extent.

Thus, practically up to the beginning of World War I, the internal and external traditions had run parallel and had reinforced one another. Student work and the architecture produced by the profession had a unified objective. This was characterized by clarity in thinking, sound planning and precision in logical expression, which placed architecture in France and the instruction offered at its national School in an unrivaled position of leadership during these years.

The effect on architectural design in the United States at the turn of the century was immense. Numbers of skillful and impressionable American students sought their training in Paris. Most of them returned home to carry on the classic tradition here. We now feel that this was not altogether well adapted to the needs of a new country with new problems of design and structure and with designers seeking fresher expression along other lines. Pioneer Americans like Louis Sullivan and Frank Lloyd Wright, going to Paris, found the atmosphere stifling to their talents and to their search for new ideas.

Perhaps the best adaptions in this country of the academic tradition of the Beaux Arts were produced by men like William Adams Delano, who came back from Paris imbued with the classical spirit, but who expressed it with originality, restraint and refinement of taste. It was a fitting tribute to him that toward the end of his active practice, he was awarded the commission to design the new American Embassy building just off the Place de la Concorde. Other Americans who went to study in Paris before and after him were not always so competent. In time the term "Beaux Arts," as used in this country, was often applied to stuffy design or to tasteless devices and adornments; eventually it became a term of criticism, and even of derision. More recently it has also been applied to student work done under the auspices of the Beaux Arts Institute of Design in New York, originally founded by enthusiastic Americans returning from the Paris School in hopes of passing on to others the benefits of the training they had received. Few persons using the term "Beaux Arts" have had sufficient knowledge of the Paris School to evaluate it correctly.

Historically the origins of the Academy of Architecture in France and the founding of its school date back, as we have learned, to 1671. François Blondel was its first professor. He organized the training of student apprentices through his own instruction and through criticism in design given by other members of the Academy to their own apprentices. That traditional method, supplemented by competitions and judgments, and surviving many vicissitudes has been slowly modified to meet the demands of changing times, and still remains the heart of the method of instruction at the School today. It has some unusual characteristics not generally well understood in the United States. Since the government maintains the School, no tuition is charged. It establishes the curriculum and sets the calendar for each year's work. Its administration is extremely impersonal; there is no one to talk to in the office except a uniformed guardian.

THE ATELIER SYSTEM

Courses are offered in mathematics, history, construction and free-hand drawing. Examinations in these subjects must be passed, but no attendance is required at lectures. The students frequently resort to outside private tutoring before the examinations. A professor of Theory of Architecture writes all the programs for architectural problems. There are six or seven internal ateliers where instruction in architecture is offered by distinguished architects who have been appointed professors of architecture. These men serve on a part-time basis, often through a long lifetime, and combine with their teaching the benefits of experience in practice. It is considered an honor and privilege to be chosen for the responsibility of training young men for the profession. In addition to the six or seven internal ateliers in Paris and those in the provincial cities, there are now some twenty-four external ateliers in Paris, called *ateliers libres*. These are likewise presided over by practicing architects, no less distinguished than the professors at the School. The famous Laloux was one of them. However, unlike the professors, these men are engaged by their senior students, who are organized in self-perpetuating groups. If the students become dissatisfied they may dismiss their patron and proceed to engage another. To advance in their studies, the students in the ateliers libres must have matriculated like any other students and they have equal standing with their comrades in the internal ateliers. They are the inheritors of the tradition of apprentice teaching organized by François Blondel

among his associates in the original Académie Royale d'Architecture. They have a major responsibility for their own instruction, as well as for the selection and maintenance of the place where they work. The combination of groups of students working in the internal ateliers with groups working in the free ateliers outside the School encourages intense group loyalty, stimulates rivalry between groups and independence of thinking. Usual meeting places for exchange of ideas are café terraces, which play an important part in student life.

Admission to the School is by competitive examinations. About a hundred students are accepted twice a year out of the 800 or 900 who present themselves for the examinations. Not more than fifteen of those accepted may be foreigners, the lowest of which must rate higher than the lowest Frenchman. Age seventeen must have been attained and the baccalaureate is now a prerequisite to entrance (graduation from a lycée, roughly equivalent to two years of our college). Beside these requirements, there are written and oral examinations in all branches of simple mathematics, in history, exercises in drawing and written and oral examinations in architecture. Many French students are directed toward the School and the profession by older members of their families, with little analysis of their real aptitudes. The number of candidates is very large and there is obviously a weeding out of unlikely candidates at the admission, but many try and try again.

For the foreigner wishing to matriculate, the major question is with whom to study—that is, which atelier to seek to join. On this choice will depend much of the value of his future study, for each atelier is presided over by a distinguished member of the architectural profession who has a definite personality and individual point of view. The choice is often made on the basis of the patron's reputation as a teacher and his success with students in winning major competitions. But more important is affinity of temperament between student and teacher. If a student has the good fortune to find a great teacher, his whole attitude may be formed for life.

METHOD OF STUDY

Once admitted to the School, a student has a remarkable degree of freedom to manage his own advancement. The curriculum is entirely fixed and consists, as we have noted, of courses in mathematics, graphics, and history and a major problem in construction; of further exercises in

freehand drawing in which black and white values must be mastered as well as accuracy of delineation; and finally and principally, of projects of elementary and advanced architectural design, of one-day sketches and prize competitions. These are developed successively until the student has achieved the requisite number of credits, which must be accomplished before age thirty, plus any years of military service. If his course of study is not successfully accomplished within that fixed limit of time, a student is no longer eligible for a diploma.

The work of the School generally takes at least four years, but within the twelve years usually available from the time of his admission, a student is free to arrange his work as he chooses, and absent himself, except for a minimum short period of about three weeks a year. He may, and usually does, gain valuable apprenticeship experience in an office—one year of this is required; he may stop to earn in other ways, or travel if he can. He does not have to attend lectures in theoretical subjects, as long as he passes the examinations. Presence in the atelier during a chosen project may even be irregular, but the end result counts and nothing is cherished so much as success. There are obvious advantages in such a free mode of progress which offers such a wide scope of opportunities for experience and development.

Architectural design problems are written by the Professor of Theory of Architecture, and are issued by the School to all students in all ateliers alike on appointed days. Elementary schemes or sketches are required to be handed in at the end of a first day *en loge*. The problems are generally of about six weeks' duration. Elementary and advanced problems alternate, so that younger students have an opportunity to work for older students, and the older ones help the younger in turn. The patron criticizes each student, and everyone, younger or older, generally listens intently to anything he may have to say about any work submitted to him. This lessens his burden of repetition and gives the students the benefit of seeing many ideas pass in review. Considerable emphasis is placed on one-day sketch problems, in which students must organize and express ideas without reference to documents or sources.

Drawings are handed in to the School on appointed days with no excuses for lateness, and are then hung in a large exhibition hall, which in itself constitutes one of the disciplines of the School, for exhibition beside other similar projects, in such cold light is unflattering; poor ideas are shown up and good ideas poorly presented fail to count

as they should. Judgment is by a jury generally consisting of the patrons or critics of the various ateliers submitting work. There are "conversations" by the Professor of Theory at the beginning of each project and "critiques" after judgments. Credits are accumulated for work successfully accomplished, but there are no fixed terms or years of promotion. Freedom and individuality in approach to design are encouraged, and students move between the poles of criticism by their patrons and judgments by the jury.

At the end of school work an extensive thesis is required on a subject of the student's own choice; this leads to the diploma. It comprises design, structural design, and an oral explanation and defense.

The procedures outlined above obviously have both the advantages and the disadvantages of a competitive system. Things are done for effect or to win, and there have been times when cleverness in planning was stressed while quality in design and good taste tended to be overlooked. One needs to check the results of collective judgment against the counsel of a perceptive teacher. There may be serious disappointments. On the other hand, the stern discipline of competition, particularly among so many contestants, is often a fruitful stimulus which produces remarkable results. Altogether the experience at the School is broadening in companionship and in spite of seeming nonchalance, it is both sobering and maturing. It offers an unrivaled training in fundamentals of architectural analysis and design.

The *Prix de Rome*, which dates back to 1720, is the most important annual competition for senior French students and its influence has placed heavy emphasis on the competitive method throughout the School. It is administered by the Institut de France. The immense prestige of the *Prix de Rome* and the benefits which inure to the successful candidate through recognition of talent and later security of position have established it firmly in the academic tradition which gave rise to it in the first place.

Nevertheless, Tony Garnier challenged the tradition through his epoch-making study, "Une Cité Industrielle," which he accomplished during his residence at the Villa Medici. He submitted it in place of the usual elaborate archaeological study or reconstruction, but was required, in addition, to submit the usual *envoi*. His challenge was not taken up. Programs continue to be impossibly pompous and grandiose and plans submitted in the competition are consequently elaborate and unrealistic.

So much for the School. We shall now trace briefly the influence of the external tradition upon the School, as new architectural expressions developed after World War I.

The modern movement rapidly gained momentum in France and raised questions in the minds of practitioners and students which could not be answered in traditional architectural language. The works of the pioneer modernists in the Netherlands were becoming known; Wright's work had been published; Le Corbusier, coming from Switzerland, had begun his practice in Paris, and proclaimed a new philosophy of architecture; Perret had completed the *Théâtre Champs-Elysées* before the war. The Bauhaus flourished for a short period from 1925 to 1933; there was an important housing exhibit in Stuttgart in 1929. These and many other influences exemplified the freest possible approach to functional planning and to the esthetic possibilities of new methods of construction and new materials. Progressively, these influences had a powerful effect on the work done in the School—at least in certain ateliers where the critics or patrons were themselves receptive to the new expression. But often new ideas were not welcomed. Students of Auguste Perret, for example, who formed an atelier and valued his criticism very highly, experienced great difficulty in having their submissions accepted. Often there was uncertainty and confusion because of different methods of approach. Work in the School was of unequal quality, poor, or sometimes positively bad. The generally inferior quality of architecture designed in France between the wars, particularly in the areas of reconstruction, reflected this confusion and had in its turn a bad influence upon the students. Bringing these comments up to our own day, the sad climax of French rationalism seems to have been exemplified in the French Pavilion at the Brussels Fair, where the idea of structure for its own sake so dominated the conception that it seemed impossible for any visitor to focus on the exhibits which the structure was intended to house.

One can, however, detect in current French design a tendency observed also in the United States and elsewhere toward simplification of masses and toward unity which does not necessarily derive from strict expression of the most logical plan fulfilling the program of requirements. It stresses rather a beautiful well-chosen form or novel structure imposed by the designer, within which the requirements are disposed as well as possible. In France there are now the UNESCO Building by Zehrfuss, Breuer and Nervi and the

immense Exhibit Hall at the Rond Point de la Defense in Paris, also by Zehrfuss—both unified geometrical forms. Among American works, we have among others, buildings like Saarinen's Auditorium for M.I.T.; Stone's United States Pavilion at the Brussels World's Fair and his United States Embassy at New Delhi; and Skidmore, Owings & Merrill's Reynolds Metals Building in Richmond, Virginia. These are indications of a new trend toward classic simplicity, revived after a period of long and painful but fruitful experiment with functionalism and expressionism. They may herald, as I hope they do, the beginning of a new era which may usher in a new academic tradition.

REVOLT

As indicated by my subtitle, I had expected to be able to conclude these remarks about the Ecole des Beaux Arts in this hopeful vein. But a footnote must be added about conditions as they exist there at the present moment, described to me just recently by a thoughtful young graduate. It appears that the students, as in many other schools of architecture, are dissatisfied! They feel that the problems and the judgments are stuffy, that the old traditions dominate the atmosphere, and that they are not free to express themselves as they would like. The almost exclusive stress on design and theory is considered too one-sided. There is a feeling that too little emphasis is given to instruction in practical and technical subjects, including city planning, which play so important a part in modern practice. Attempts have been made to establish new ateliers under more progressive leadership and criticism. Some

students have withdrawn to enroll in the Ecole Speciale d'Architecture, a private institution where Auguste Perret was at an earlier time influential. It has more liberal tendencies and a curriculum, terms and schedules much more like our present-day American schools.

There has been talk of strikes among the candidates for the Prix de Rome, with threatened refusal to participate until the spirit of the competition is brought more into line with current trends.

This general dissatisfaction is doubtless due to various factors. First, the depletion in manpower caused by the War lowered the standards of work. Second, the subsequent rapid increase in number of students, both in Paris and in the affiliated groups in the provinces, overwhelmed the facilities of the School. Its traditional procedures are hardly adequate any longer. Third, and perhaps most important, the lack of continuity in tradition has produced a sense of hesitancy and uncertainty as to objectives. Whatever the reason, confusion such as I have described still obtains. In such an atmosphere much greater effort and talent is needed now than ever before to achieve creative results.

Nevertheless, those of us who follow developments at the School with interest and sympathy feel confident that it has the strength and resilience to modify its procedures as needed to resolve the conflict between sound, if conservative, internal traditions, and modern and more radical external influences, so that the School will continue to encourage and stimulate young talent, sorely needed in a country with such a great inheritance. ▶

THE ECOLE DES BEAUX ARTS



A Light-hearted Few

► *Continued from page 26*

The school is divided into three classes: The preparatory students, or freshmen; the second class students, who cover approximately three years of schooling; and the first class students, who are the American equivalent of seniors. They follow the hazing system in which the upper classmen bully the younger students. I fitted in this scheme of affairs as a *libre*, which is to say, a graduate student who was not subject to daily torture

or humiliation. Since I was from California, I was referred to as the "cowboy" and my name from the first day was "cowboy" or "American." The students in my atelier came from fifteen countries; they included all of the European nations, Africa and the Middle East.

School is run on a voluntary basis. You do as much work as you schedule, and you progress as quickly or as slowly as you desire. To graduate,

you have to pass a certain number of competitions in each of the three classes. The method of presenting work is unique in that it is a battle of wits between the unified student body and the faculty. The problems are given in the form of all-day design problems which are called *esquisses*. The esquisse consisted of working out a solution to a problem in sketch form. The problems are handed out in the morning and the students are required to turn in the solution within eight hours.

The esquisses are solved in locked salons, which are carefully monitored. However, the system does not work that way. All of the students troop into the esquisse chambers, carrying a supply of food and wine along with sketching materials. Pandemonium immediately begins and it reigns for six hours while the students sing songs and drink red wine. During the last two hours, everyone becomes busy and collaborates on an acceptable solution to the problem. The problems are similar to those given to students at American schools—such as offices, bank buildings, shopping centers or department stores. The sketches are made purposely vague and ambiguous, as the final solution has to follow the sketch prototype in order to pass the problem.

Lab time is devoted to working out the problems in the atelier. Each student devises his own solution and all of his friends collaborate with him in turning out the finished product. There is no such thing as individual effort. Each student seems to have a specialty, such as rendering skies or landscapes, and he is called upon to reproduce his skill on all of the drawings. The final product looks as if one person had done all of the presentations, except for the variety of the solutions.

French draftsmanship is superior to that of the average American student. Their renderings are extremely well done; they are easily equivalent to the finest water color work done by professional artists. The Beaux Arts curriculum during the freshman years requires expert drafting and rendering. If a student cannot meet the Beaux Arts standards, he is never allowed to pass a problem.

The faculty is chosen in a unique way. Most of the professors who head the ateliers are selected by the students, rather than the school. The architect-professors regard teaching as an honor rather than as an obligation to the profession. It is good that they have this viewpoint for the school does not pay the professors any salary for the instruction and time they contribute. The faculty consists of the best-known and busiest architects in Paris who generously take time from their heavy schedules to teach. The respect these unruly stu-

dents give the professor or maître is amazing. Regardless of the bedlam occurring at the time of his entrance, the class immediately drops everything, both work and horseplay, and forms a circle around him. You are not permitted to whisper or to interfere with his instruction period. The professor speaks generally on architectural principles and the current problem. Later he addresses each student by name and inquires about his progress. He usually gives some criticism on the current problem, suggesting changes and revisions.

Final presentations are drawn on stretches prepared by local art shops. At the problem deadline, the work is collected by a little cart or *charrette* and is delivered to a salon where it is judged by the faculty. The best solutions are awarded medals and ribbons and the remainder are marked "pass" or "fail." Generally two-thirds of the students are failed.

The school year is capped by the annual *Bal Quat'z' Arts*. The French design faculties unite for the ball and pick a theme. With the selection of a theme, the students drop everything for a month in order to prepare for the ball. Scenery and props are made for the ballroom and costumes are designed to carry out the theme. The stories of the orgies and general hell-raising that occur at this *soirée* are not exaggerated.

To graduate from the Beaux Arts as an architect, requires four to seven years for the average student. Theoretically, the four-year period is possible, though very few are able to complete it because of the lack of student discipline. Tuition is free and is borne by the French Government; this includes all foreigners. Graduation from the Beaux Art is tantamount to receiving a registration, as the diploma is the legal French architect's license. Practically every architect in France is therefore a graduate of the Beaux Arts in Paris or of its regional counterparts throughout France. The diploma, can be earned through examination by those who have not completed formal training, such as in the case of Le Corbusier and Perret.

The Beaux Arts approach to design and style is of casual indifference. The nearest one can come to defining their design is to politely call it "modern neo-classic." The new architecture of France generally follows this worked-over style in spite of Le Corbusier's stilts and windows or the sleek profiles of the international styles which are the toast of the architectural magazines, but not of the typical practicing architect. In defense of the French, it should be pointed out that this same condition exists in our own country. Many of our major building efforts are still conservative with

their roots in McKim, Mead and White or Cass Gilbert.

Design consists of learning how to draw classic and Romanesque temples with an occasional foray into Egypt. The students then eliminate all of the expensive handworked frills, thus making the building "modern." One strange facet to this historical drawing course is that Gothic, including the wonderful French examples, is virtually ignored. Perhaps the Gothic attempts at a soaring vertical feeling is against the French love of sweeping horizontal masses. Examples of faculty-approved work can be seen in the monthly *Concours*, or competitions, where medals or prizes are awarded for the best work. In all cases, the award winners copy the past. As an example, the winning designs in all of the competitions the year I attended were in a modified Romanesque style which evidently was favored by the faculty.

Schooling in France, in addition to giving a

Gallic flavor to one's architectural training, provides an American with an interesting visit to the nineteenth century where architecture was more concerned with the proportion of columns than the amount of reinforcing required. In structural engineering, the Beaux Arts is inferior to the average American curriculum. It is not as thorough nor as extensive. In the allied fields of mechanical and electrical engineering, virtually nothing is covered. The American preoccupation with city planning is also minimized. An odd paradox is that student design is different from the current work built in France, which is in the sleek international style, in which the French are leaders. The Beaux Arts does instill in one a respect and appreciation of the greatness of our architectural past, which is often neglected in our colleges. The French emphasis upon fine draftsmanship and crisp rendering is another feature of their program which might be considered in our own professional schools. □

INTERNATIONAL COMPETITION FOR A NEW LIBRARY IN IRELAND

The Board of Trinity College, Dublin, Ireland, has announced an International Competition for the design of a new library proposed to be built in the College beside the existing library, the oldest and largest in Ireland, and one of the great libraries of Western Europe. The present building dates from 1732 and houses nearly one million books.

Many fine collections have been acquired by the Library, which is particularly noted for its wonderful group of early Celtic manuscripts including the world-famous *Book of Kells*. As the only legal deposit Library in Ireland it performs many of the functions of a public as well as a College Library. Approximately a hundred thousand visitors come to it every year.

The competition is open to all architects authorized to practice in their own country who are members of a recognized architectural institute or society. Entries will be accepted from firms or other associations of architects formed for the purpose of the Competition.

The cost of the proposed building, including furnishings and fees is estimated at \$1,400,000.

Entries will be judged by a Jury of Award and will include the following members: The Rt. Hon. the Earl of Rosse, Vice-Chancellor of Dublin University; Signor Franco Albini, Professor of Interior Architecture, Furnishing and Decoration at the Institute Superiore de Architettura, Venice; Sir Hugh Maxwell Casson, Professor of Interior Design at the Royal College of Art, London; Raymond Mc-

Grath, Principal Architect of the Office of Public Works, Dublin; K. Dewitt Metcalf, American Library Consultant, formerly Director of Harvard University Library.

A premium of \$4,200 will go to the author of the winning design. An award of \$2,800 will go to the author of the design placed second, and \$2,100 will go to the author of the design placed third.

Registration will close August 31. The last day for questions will be September 30, and designs must be submitted by March 1, 1961. Judging will begin April 22, 1961.

Copies of the competition conditions and the official registration form may be obtained on application to the Competition Registrar, Trinity College, Dublin, Ireland. A deposit of \$14.00 must accompany each application. The deposit will be refunded after publication of the awards to all architects who have submitted a *bona fide* design, and to architects who have returned the conditions before December 31.

Significant dates to remember in the competition are:

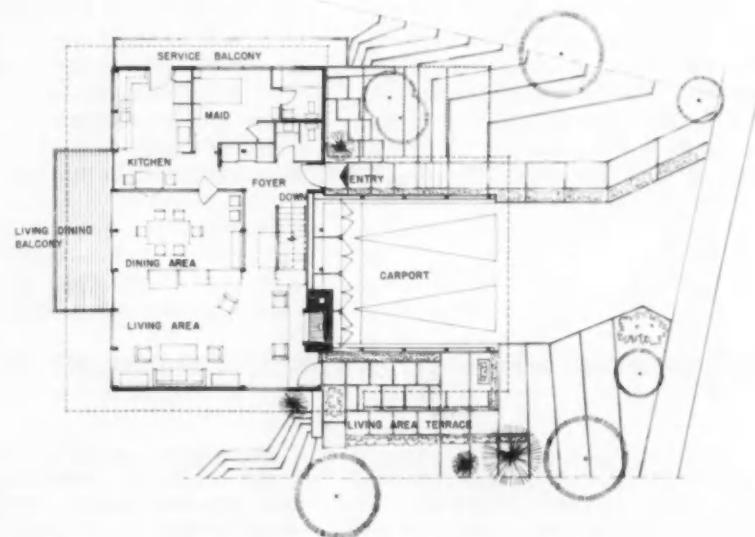
Conditions available	15th June, 1960
Last day for registration	31st August, 1960
Last day for questions	30th September, 1960
Last day for dispatch	
of designs	1st March, 1961, 5 p.m.
Last day for receipt	
of designs	21st March, 1961, 5 p.m.
The Jury will meet for judging ..	22nd April, 1961



Ezra Stoller

Favorite Features of Recently Elected Fellows

RESIDENCE AT SEA CLIFF, LONG ISLAND, N. Y.



DANIEL SCHWARTZMAN, FAIA
New York City



Ezra Stoller



Ezra Stoller

Last October, the Editor was invited to participate in the program of the convention of the Northwest Region of the Institute, held in Spokane, Washington. One of the most effective parts of the three-day program was the stunt "Cities Are Funny!" Several visiting architects were given cameras (loaned by an enterprising camera shop) and turned loose on the streets of the city for two or three hours, with instructions to photograph whatever they saw that interested them—either for beauty or for lack of it.

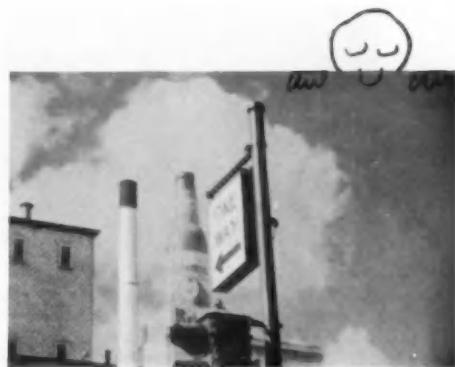
The color slides resulting were then shown to the gathering, with comments by the photographers. Some of them found great beauty in strange places, such as the reflections in the window of a junk shop. Others focussed on neglected buildings, others on Spokane's riverfront, and still others on the general ugliness of the city—any city.

We reproduce here a few of the slides, with the comments of the architect who snapped them. It's a good game; try it in your city!

Cities are Funny!



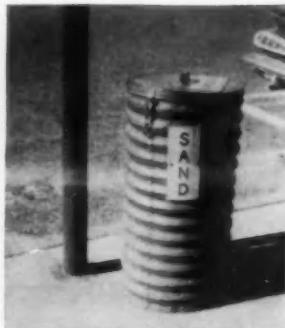
Wood, being indigenous to the area, is seen in abundance as a building material.
ALAN CURTIS LIDDLE



Even the City itself points the way to a richer and fuller life! ALAN CURTIS LIDDLE



There's a European quality about the streets—this could be a bit of old Florence.
ALAN CURTIS LIDDLE



If Spokane had a municipal art commission, it would concern itself with all elements of "street furniture." For a major city, a more attractive receptacle for trash could be found. JOHN S. DETLIE



Patriots and heroes are honored by bronze statues strategically located on grassy plots in the center of town, providing relief from the hustle and bustle of traffic. (Ed. Note: Can you find the statue?)
ALAN CURTIS LIDDLE



A magnificent trade-mark of Spokane that lacks only a total landscape treatment, particularly of the steep banks, to distinguish this beauty spot. JOHN S. DETLIE



After the war, the returning veterans, in expressing their brave new world, evolved an architecture of their own—the Contemporary style with its trademark, the shed roof. Many of these new houses were large and sprawling, and the more desirable waterfront sites were soon gone. ALAN CURTIS LIDDLE



A typical "jungle" of commercial irresponsibility all too prevalent under our system. America must establish a new tradition of cleanliness and clarity in the effect of the whole scene. Our cityscapes induce a sense of confusion in all people. JOHN S. DETLIE



A typical entrance to an American city.
JOHN S. DETLIE



I found the face of the city rich with patterns and textures—native stone, brick, even corrugated steel.
LEWIS CRUTCHER



I couldn't help but be completely captured by the beauty of the falls. Even though they're criss-crossed with bridges, there is still something thrilling in this play of patterns—light and shadows of steel against the force of the water.
LEWIS CRUTCHER



PAUL LESLIE BLANTON



I was charmed by the beauty of the early brick buildings. This crescent represents the best in cityscape, where each building becomes part of the total street scene, and the space is unified. There is elegance in these fine old brick fronts and the space is delightful. LEWIS CRUTCHER



Unfortunately, Paul Leslie Blanton's remarks were not preserved, but this picture and the one above require no comment!

Philosophy and Architecture

by Dr Gustav E. Mueller

Research Professor of Philosophy

at the University of Oklahoma

► Architecture is the oldest and most fundamental of the arts; it makes room for all the others.

Space and time of immediate experience relate shifting perceptions and drifting things. But this space can be ordered; the eye is the first architect: It orders the "stars" in a "vault," all arranged in the same visual distance. This dome of the sky is a cosmic architectural structure.

Under this vault man lies down or stands erect; and he projects these horizontal/vertical dimensions of his movements into special structures. In his rising he overcomes the gravity of the earth and his own inertia; as artist he plays with such feelings of resistance and weight.

Man builds himself into his natural environment and makes it appear as his own embodiment. He plants himself, as it were, so that architecture must look untransplantable. To transplant English Gothic into an American prairie is as incongruous as to transplant an American skyscraper into a Gothic town cuddled up between soft hills, dreamy forests and idyllic rivers. This is the inalienable right of regionalism.

The surrounding landscape is actualized in the vision of human architecture. The vision expresses

the structural principles found in nature: Chinese temples slope gently like the terraced landscape of Chinese gardening culture; the Hindu temple sprouts into a luxurious abundance of organic forms in tune with the vegetative tropical jungle; the Oriental mosque mirrors the glaring colours of the deserts in its coloured tiles, in the infinite openness of the sky in its dome, and the undulating desert patterns in its arabesque ornamentation; Greece crowns the clear contours of its promontories with the plastic harmony of its temple; and the Gothic cathedral fuses the mood of northern forests in the clair-obscur vaults of its bundled arches with the religious elevation of the soul.

Architecture uses masses of inorganic materials, which have their own qualitative expressive energies; compare, for instance, the red, rough, warm brick with the cool, smooth marble. Architectural imagination must be true to the expressive nature and potentiality of the materials. A Gothic cathedral carved in wood is as ridiculous as a chalet constructed in the cold and business-like materials of glass, steel and concrete.

FORM

From landscape and material I now turn to the consideration of form. Form in all arts is the rhythm of expressive qualities in the medium of each. The medium of architecture demands its own rhythm of striving up/pressing down, its own balance of weight/support, its own proportion of extension and massiveness, its heavy or graceful ductus of outlines. The rhythm of repetition and variation, balance and proportion of inorganic masses, is ostensibly executed before our eyes. Foundations anchor the building, roofs limit, and walls define the architectural unity which is the "living room" of man in nature. The organism of the whole building grows through the diversity of such "living rooms," accentuated according to the importance attached to their functions. They are the visible organs of a total and functional whole. Halls and stairways link them; while expressive textures and colors please the senses.

Private, social, religious purposes enter and determine the architectural form and find their appropriate embodiment through it. The purposes of family life, of business and traffic, of communal and national needs, of recreational and educational institutions, and of religious worship must each find their own appropriate expression. Social values, no less than natural materials, are the precondition of this art.

The architect has succeeded as artist, if his family dwelling, his department store, his harbour, his railroad station, his capitol, his hotel, his school, his church are such that we cannot separate the functions housed from their architectural embodiment; if he makes them look convincing, so they would seem to be impossible in any other shape. In a good church the structure itself must breathe reverence, concentration, awe and silence; while a bank should inspire confidence in its solidity, in its smooth efficiency and vast power.

Contemporary architecture of planes and cubes in concrete, glass and steel demands a vast grouping of its geometrical patterns, sovereign ease and fluidity in the distribution of its masses to express the rational organization of modern collective life.

Architecture is a true art, and not merely engineering, because it fulfills the requirement of the esthetic ideal: It harmonizes the polarities of its lifting/pressing materials in accordance with the polarities of social purposes. The world of architectural art demonstrates the esthetic identity of man and world. It transfigures social life into a

natural spectacle, and it humanizes nature. This architectural fusion of soul and nature is its esthetic meaning.

The difference of architecture from other spatial visual arts lies in the magnitude of its social purposes in synthesis with the magnitude of natural materials, and by the exact, mathematical, measuring method of its vision.

What, now, is the relation of architecture to philosophy?

ARCHITECTURE AND PHILOSOPHY

Both philosophy and architecture are *edifying*—which means they both erect edifices in which man finds himself, is at home with himself; protected against turbulent and disturbing intruders. Both make room for or make possible all other values of life or all other arts; they take place in them. Architecture is their spatial, philosophy their spiritual home. In one and the same act, philosophy and architecture *enclose* man in their shell and structure, and *disclose* open vistas, new horizons, spiritual possibilities of expansion and self-realization.

This analogy has always been felt, the comparison frequently made. One refers to philosophy as having architectonic form, as being well built or built on sand, as resembling the style of temples or of cathedrals or of factories—if one's philosophy is pragmatism; and one refers to architecture as expressing an underlying world-view, a cultural whole, the spirit of an epoch or a people, a dominant value of life—all transcriptions of philosophy. Kant, for instance, compares the philosophical system to a building, which is bound to collapse, if critical reason would not investigate the ground before laying the foundations.¹

Both philosophy and architecture are free human creations, which do not imitate nature. Architecture expresses social purposes in inorganic, natural materials; it either crowns nature, or contrasts itself with it; philosophy includes nature as one of its problems and ingredients. As naturalism is analogous to that organic architecture, which tries to make itself a part of an organic-natural environment. As transcending nature, philosophy resembles that architecture which is proud of its majestic domination of a natural environment.

Both philosophy and architecture are *totalitarian*—no political overtones, please! The totality of human function must find visible embodiment and adequate expression in architecture; it must find its house and home, the clamor for embodi-

¹ Kritik der Urteilskraft. Vorrede.

ment. All essential dimensions of reality are distinguished and united in systematic philosophy; all essential values and concerns of men are reflected in its universality.

To illustrate this thought: Man wants to be alone and wants to be together; he works and rests, he sleeps and eats and he celebrates and worships. All such social function—and the hermitage built for a hermit is also a social function—must be adequately cared for and expressed by architectural art. Likewise, the realism of reality: Nature and immediate experience, science and technology, individual and social ethics, political and historical value-conflicts, art and religion, are all the building materials for philosophical systematic reflection.

And just as architecture cannot be understood, if one would single out one of its aspects—for example, city planning or government buildings or churches—so philosophy cannot be understood, if one would single out ethics or philosophy of science or philosophy of religion. Both architecture and philosophy need those opposites in their independence as well as in their interdependence. Both architecture and philosophy express the unity of opposites in and as a totality; both are dialectical.

This leads me to the most decisive point of similarity. An architectonic whole—a well-built city or a great modern university—as for example the University of Mexico, is not something outside of or apart from the many different functions which it embodies. Architecture does not stand apart in and for itself as a sculpture or a painting may seem to be self-sufficient. It exists only in serving the many purposes of life which it enables to function properly. The different rooms of a family dwelling—to change the illustration—form together and *are* one and whole house, which is nothing outside or apart from them; as they, on the other hand, are nothing apart from their functions in and contributing to the organic whole of family living, embodied and expressed in the whole house. Systematic philosophy, likewise, is not an abstract “system” behind, outside of or apart from the many systems, each of which is known to be a necessary but insufficient aspect of reality as a whole. The openings leading from one part of a house to another, the streets and places linking the city through open spaces are analogous to the mutual limitations which keep the philosophical disciplines separate and linked to one another precisely through their difference. For example, that a work of art is neither a practical moral act nor a scientific proposition

is essential to the work of art; it is constituted to be what it is, by not being that which is opposed to it. At the same time, those opposites—moral activity and scientific knowledge—are for the building-art (*Baukunst*) preconditions which are fused, integrated, built-in, as for example in laboratories or court-houses.

This leads to a further analogy: The dialectic of inner and outer, function and form. The architectural creed, “form follows function,” expresses the old dialectical truth, that the visible, physical outside is the appearance of the invisible function or activity of life, which embodies its purposiveness in its organic shapes. Apart from this living function, the physical appearance may be observed and handled in abstraction, as if it were real in and for itself; but this is as much an abstraction as a facade without a house behind it; or as an amputated hand, which still looks like a hand without being one.

In summary: Both philosophy and architecture build structures to give adequate expression to a totality of different values and opposite function; architecture in the visible medium of inorganic materials, philosophy in the invisible medium of dialectical thought.

THE CLIENT

Philosophy and architecture meet and have to cope with all sorts of clients; they have to satisfy very different problems and must do justice to ways of life which often are in conflict or do not know themselves; in this case architecture and philosophy have educational tasks. In the past, values were unanimously preferred. The architect had no choice of style, but his style was simply prescribed by the prevalent taste; likewise, philosophical systems were thought in terms of predominant values. This history of philosophical systems and of architectures are parallel.

To mention as a few examples: Classical Greek culture—the Age of Pericles—found its adequate architectural embodiments in the *polis*—the city-state, and in Plato’s *Politeia*—the so-called Republic which he calls the visible vessel of the eternal. It was dominated by the truly monumental Acropolis, its temples dedicated to the gods of imagination. Subordinated to it, but equal in dignity, was the Agora, the core and pulsing heart of a free people; it consisted of government and judiciary buildings, the bank for the state-treasury, and the Stoa, the arcaded market buildings. Midway between the Acropolis and the Agora was the theater, where the people celebrated their tragic and comic existence in the religious festival in

honour of Dionysos. The private buildings were kept modest, turning their backs to the street, dedicated to home life. Sumptuous, luxurious, private buildings were forbidden; the punishment for such was exile. Look at the beauty of Athens and you understand the truth of Plato.

The Roman Forum, by comparison, is a hodge-podge, mixing religion and business, temple and stock exchange, prison and the platform for oratory (the rostrum). Immense palaces to express the power of deified emperors face the Colosseum for cruel and bloody amusements. The most beautiful building of ancient Rome is the Pantheon, the majestic imperial cupola gathering the deities of subjected peoples around the world. The spirit of world domination and absolute will to power speaks eloquently in Rome's architecture.

Man's loss of an organic community and his loss of confidence in himself is formulated in philosophy by skeptics and eclectics; the withdrawal from participation in the affairs of the world is the fashionable Hellenistic-Roman philosophy of Epicureans and Stoics. In art, this uncertainty corresponds to a loss of style; to abstract distortions and imitations of former styles, or simply to using parts of former buildings to patch together new ones. The old architecture is turned into a quarry. Jacob Burckhardt's "The Age of Constantine the Great" describes this philosophical decline and artistic decadence in detail.

At the same time a metaphysical revolution takes place. Man turns from this world to a Beyond and to a supernatural Savior. Accordingly, architecture is dedicated in the Romanesque period to the building of domes and churches, towering over wretched human hovels.

In the Gothic age, the church is balanced by the castles of kings and nobles, some of them very impressive in their massive and expansive power and solidity. Scholastic philosophy, mainly in Thomas Aquinas, is the corresponding conceptual cathedral. Thomas balances the ethics and the logic of Aristotle with the Christian tradition—gives to the emperor what is the emperor's and to God what is God's—and erects a philosophical hierarchy of many ascending levels of reality and of value; all transparent towards the absolute Beyond, as the colored windows in the cathedral break the natural light to make supernatural symbols lucid.

The philosophy of the Renaissance is, as the name denotes, a rebirth and a re-awakening of all the gods. All essential human values regain their independence and autonomy: The political state, with equal rights for all citizens; the economic

system of free enterprise and movement; sciences and arts, technical skills and exploration of the earth—these reduce the formerly all-dominating religion to one value among the others. Consequently, the dark and huddled medieval town is replaced by the many-faceted modern city with wide open places and many centers of equal importance; the rediscovery of the value of nature is expressed in parks.

Renaissance art, including architecture, loves symmetry and balance of parts, each of which is in its place, clearly and distinctly formulated.

The following Baroque period of the seventeenth century is the last of the great European styles. The world is a moving, dynamic, living whole of an infinite number of centers of energy. The most representative philosopher of this period is Leibnitz. His living centers of energy he calls *monads*. Each reflects the universe in his own individual modification; they are "living mirrors of the universe." In art this world-view favors the infinite, spiral movement; the forms lose their Renaissance clarity and distinction and are drawn into a sort of a whirl, overwhelming you with its dynamic, fluid transitions. The finite and the infinite interpenetrate in such a way that the finite in its limitation is the necessary condition of the infinite movement; a discreet step in a qualitative continuum.

Let me quote from Leibnitz a philosophical-architectural phantasy:

"The halls rose in a pyramid, becoming even more beautiful as one mounted towards the apex, and representing more beautiful worlds. Finally they reached the highest one which completed the pyramid, and which was the most beautiful of all, for the pyramid had a beginning, but one could not see its end; it had an apex, but no base; it went on increasing to infinity. That is (as the Goddess explained) because amongst an endless number of possible worlds there is the best of all, else would God not have determined to create any; but there is not any one which has not also less perfect worlds below it; that is why the pyramid goes on descending to infinity."²

The eighteenth century Rococo continues in the Baroque tradition, but in a minor key, so to speak. It becomes pretty, playful, ornamental. You can see the difference when you walk from the palace of Versailles to the Petit Trianon in the park; or compare Leibnitz and Voltaire.

THE NINETEENTH CENTURY

In the time after 1830—in short, in the nineteenth century—something strange happens. Together with machine civilization and industrializa-

tion of life, all sense of style is lost. Chaos reigns. We are getting ready for world wars and for the suicide of Europe, and for the avalanche of overpopulation which favored plenty of building but did not favor architecture. The nineteenth century covered the earth with the ugliest cities on record. In Europe, a step separates the beauty of the older part of a city from the nondescript boredom where the nineteenth century sets in. This struck me with particular force in Rome. The city proper is an inexhaustible architectural delight, a symphony of grandeur. Step through the ancient city wall and out there, in what used to be the solitary Campagna, the new Rome stretches out in crowded, square, monotonous blocks of housing for the locating or corraling of masses.

Philosophy and architecture after 1830 had several embarrassing shortcomings in common. All the previous architectural styles and philosophical world-views had been naive and certain of themselves. One built and one thought as if it were impossible to build or think differently. Now, all of a sudden, all styles and all systems were fully known; all forms and techniques were at one's command—but none fitted. Instead of philosophy one got history of philosophy, a collection of past systems without a conviction; instead of a new architecture one got an eclectic imitation of past styles, often mixed up like an architectural cocktail, also without conviction. One example among many is the pseudo-monumental curtain of Greek columns in front of the Mellon Research Institute in Pittsburgh. Over against those learned imitators and mixers, who tried unsuccessfully to shape the new needs of an industrial and socialistic age with old and imitative means of a dead past, technicians and engineers, who built bridges, silos, factories and machines, proclaimed in deed and word a naked utility or technicism as esthetic principle. They correspond in philosophy to the scientific materialists and positivists for whom successful manipulation of given stuff was the only worthwhile knowledge. Given those two premises: Insufficiency of all past styles and systems on the one hand, unesthetic technicism and anti-metaphysical positivism on the other hand—what happened to the creative artists and original philosopher? They were there, as in all periods, but they were alone. They had no clients, for whom they could build; they had no public, which would take philosophy seriously; they were without that community which in former ages formed a reliable matrix. No wonder that they became eccentrics, so-called originals, who smashed the ideals of the past and

thought they could go it alone—build as no one else could or would ever build; discover "authentic existence" in their absolute isolation, which is death itself. All this together left the new mass-man homeless. The Western world became one huge concentration camp of displaced persons with a schizophrenic mentality: On the one hand clinging desperately to the past, because one knew nothing better; on the other hand desperately disclaiming the past in a fury of dispossessed impotence. This impotence is painfully evident in many settlements which were rebuilt after their destruction in the two wars. In place of the charm of the old town, in which individual differences blended organically with the whole, we now have hastily and mechanically constructed units, arranged in a dull regularity without any charm whatsoever.

Nevertheless, the task of philosophy and architecture remains inexorably the same. What we think or build must be worthy of our great past; we must comprehend as well as transcend past systems and styles. We cannot simply forget what they taught us; but we must absorb them in order to continue our tradition in a new modification; in response to the new needs, with new forms and materials. It characterizes both philosophy and architecture, that they build not only for the day or for the individuals, but for ages and for communities, to which individuals contribute. One reason why architecture is almost absent in the United States is that North Americans built as nomads build their tents for momentary needs, or for making as much profit as possible; they lacked the sense for epochal and communal continuity. The mechanical ugliness of the core of American cities is not compensated for by the individualistic anarchy of the suburbs, where every individual builds his house in complete disregard of the neighbors.

PHILOSOPHY AND ARCHITECTURE TODAY

The ethics of this age of industrialization and of masses is socialistic. This has nothing to do with political slogans or parties. Life in the United States is just as socialistic as it is in other states which call themselves socialistic. It goes on in immense, cooperative societies, which are organized not by individual owners, but by professional experts. Private ownership or private enterprise is still valid for small segments in the whole enterprise, functioning on a national and international scale.

Philosophy began in emancipating man from fear, superstition and magic by thinking of nature

as an intelligible and beautiful order; architecture, likewise, began in sheltering man against irrational natural elements. It continued to build for the gods and for emperors and kings. Today it must build for the neighbor, protecting him from individualistic chaos and from the harshness of industrial mechanizations. For the first time, architecture is not only built by man, but for every man. It must blend individual differentiated functions and needs in a communal organization for the masses. Domes, castles and pseudo-monumental facades cannot harbor them and make them feel at home.

Modern philosophy is dialectical: It has overcome its past history of opposed and isolated systems by understanding their value in their limitation. It distinguishes the many opposite functions and values of life as equally necessary expressions of the wholeness of human existence in the individual as well as in his community. The moral value of personality is not a legal contract; the legal validity of a title is not identical with its economic price; I am what I do and what I do IS, it characterizes Being. In all such dialectical relations man is conscious of himself as being one with them and as being more than any one, considered in abstraction or isolation.

Likewise, an organic and communal architecture must find different expressive forms for different functions. A family dwelling is not a factory, a factory is not a theater, and a movie theater is not an opera; a house on a mountain is not a house on a plain or in a valley.

A building contains many rooms, each of which demands a different treatment to express different functions. And buildings make little sense if they are not organically related to the neighborhood, so that the neighborhood as a whole is becoming visible in its inter-dependent activity.

We must overcome both the megalomania of colossal structures, which have lost the human measure and are therefore not sublime, but simply measureless, as well as an egotistic isolation, as if man existed apart from his fellow man.

Let me illustrate the new socialistic architecture with an example: "The Unity of Habitation" designed by LeCorbusier in Marseille. It is intended to serve 1600 people in 337 apartments. To put that many people under one roof is, in itself, nothing remarkable.

New York has monstrous apartment-blocks for 4000 people in which cubicles are strung along in juxtaposition and piled on top of each other. LeCorbusier has flexibility, accommodating bachelors, young couples, as well as families with eight

children. They are made comfortable by a home-market, a street of shops for every need, which runs in the middle of the building. It is made visible from the outside by sun-breakers, running along the whole building; together with vertically arranged windows it imparts a strong dynamic rhythm of horizontal and vertical lines. There is also a hotel for guests and a postal office. On the seventeenth floor are nurseries with trained nurses for 150 children. On various terraces are school-rooms, playgrounds, gymnasiums for physical training, a swimming pool, rooms for games, and gardens. Some walls are left for children to decorate; and the most frequent motive is the Unity of Habitation, which shows that it has captured the affection and imagination of its young inhabitants. A great variety of forms and levels are designed to leave no dull corner in the whole complex; the homes are functional simplicity itself, making it easy for young people to start out without having to buy too much furniture. The whole is an expression of a socialism making it easy to find a rich and varied community life in perfect individual freedom.

I wish I could have chosen as an example the Back Bay Center in Boston which was designed by Walter Gropius.³ But the Bostonians rejected it because they could not think of planning a beautiful city or a comprehensive whole; they preferred the old American way and threw the land to real estate speculators.

The whole area was designed to protect the free, leisurely and unmolested movement of pedestrians; cars being taken care of in underground channels and garages.

A great deal of so-called modern nervousness is caused by the constant state of alarm and anxiety to run for your life. The shopping district was arranged in a round center, which is not only practical and time-saving, but also makes it possible to build pleasing facades toward the street, which thus becomes interesting again. A slender forty-story office building marked the center of a thirty-acre area within easy walking access from the apartment houses arranged in irregular distribution to guarantee the maximum of light and gardens.

In conclusion: Philosophy and architecture have the common task of healing the split of knowledge and feeling, of individual and community, which widens into an abyss threatening to engulf our industrial society. We must find a dialectical whole which keeps inviolate the difference of essential values and considers the infinite flexibility of their individual agents. ◀

THE EDUCATIONAL VALUE OF



The Pneumatic Hammer

BY EDWIN BATEMAN MORRIS, SR., FAIA

► Perhaps you have never given it thought, but people do learn and are uplifted by observing and listening to construction. Always there is a new building rising near you. It would seem that right in a spot completely filled with buildings suddenly there begins to appear a new building and thereafter through the day noises and roaring and hammerings issue therefrom without cessation, making it hard to intelligibly communicate with others or to arrange for the making of another million, should that prove to be necessary.

Yet one does learn. I, for instance, have never been too conversant with geography, finding it hard to remember names of places. But when the pile-drivers go to work and begin their chant "Pocasset, Pocasset, Pocasset," that geographic title is culturally impressed upon me. I am not sure exactly how much good that does. But still, if there ever comes a time when it is necessary for me to know the word Pocasset, I'll have it.

Then later when the pneumatic hammers go to work with their sneering chatter, I, although everyone else is beside himself in exasperation, look upon the sound as an emotional outlet. If, let us say, I get a coldly unfriendly letter from the Director of Internal Revenue, a gentleman with whom I occasionally correspond, I am—more or less—irritated, since he is usually far from reasonable. Thereupon I hold his letter up to the open

window so that the ill-natured gibe of the hammer will be clearly audible with its "Heh-heh-heh-heh-heh!" I couldn't possibly think of anything more sneering than that and, while it seems to have little effect upon the Internal Revenue organization as a whole, it soothes me.

Or, if there is a sports disappointment, or an occupational disappointment, or a financial disappointment and a person sits in an aura of minor gloom, suddenly the construction elevator in the nearby building, sensing adjacent discouragement, drops sympathetically, ejaculating "whoo-osh!" as it goes, to explain understanding of the idea of a dull, sudden thud.



That explains companionship in the matter of minor things. Were it bigger financial discouragement it might not help. But there is, in general, companionship in construction turmoil, especially if one's life has parallel construction. I like to hear a foreman down on the sidewalk bellowing to a character on the seventh-floor framework, asking him maybe whether he has an eraser, and the seventh-floor character re-bellowing at intervals "What?" It convinces me that the lives of others can be frustrated, from which conviction may come relief.

There is also, in construction, the rewarding procedure of looking through an opening in the fence surrounding an incipient building project to discover what goes on. If the fence were not there, it is possible no one would look. But the fact that it is there whets the appetite and one waits in line and looks in to see a large hole.

There thus comes into view a picture of activity, sometimes seemingly inadequate. A man with a power-shovel scoops up a cubic yard of earth at the SW corner and drops it into the NE corner, when it actually seemed better the other way. Or



he drops it into a truck, whose driver seems rather puzzled than otherwise, as if away down there he were wondering whether he were ever going to surface again. An enlightening scene, seeming comfortingly to prove that others, too, sometimes have days when nothing seems to be accomplished.

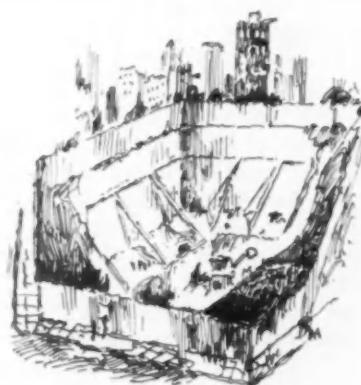
And, presently, after a lengthy time, the building gets to a point where there is on view a high framework, indecently exposed. As to proper covering, it usually develops that there is a delay occasioned, you learn, by the fact that a firm in North Towanda or somewhere has failed to fabricate and deliver the facing material. And then, over the world, comes this stillness, the funereal quiet of inaction, somehow discouraging and discomfiting.



In the times when construction is moving and moving fast, one learns the English language more perfectly from the building trades—tastes the beautiful and dramatic forcefulness of it when shorn of grammar and graceful phrases; and when it advances to explosive simplicity, with flavoring of corroding words, it seems so fully to comfort and sustain the speaker.

Thus the world owes so much to the architect, who patiently puts ideas on paper in pleasant quiet. Yet, in that still act, is the seed of beautiful and dramatic uproar—frenzied shouting, machine-made noise and all the bedlam of construction in full blast.

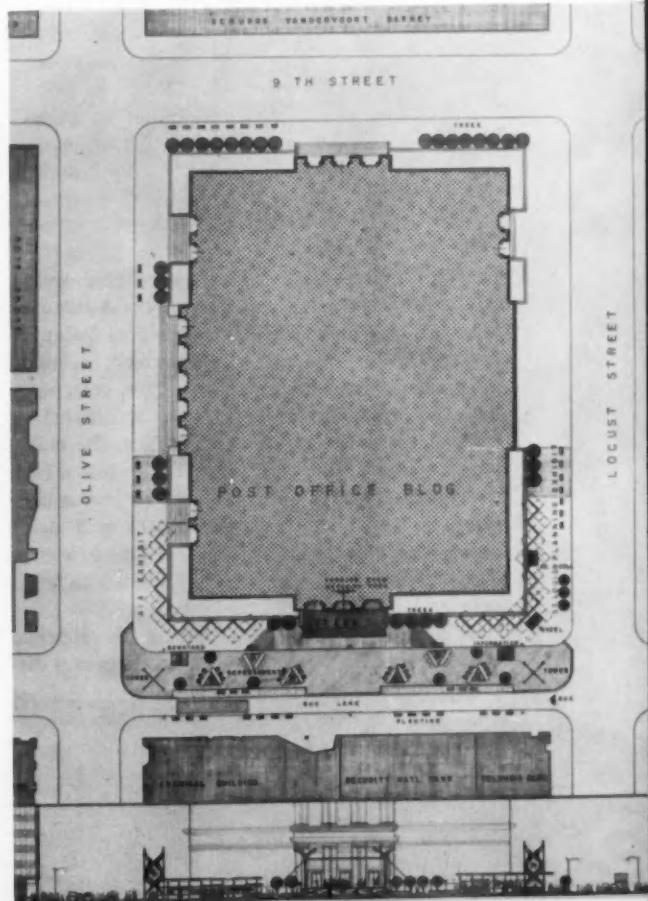
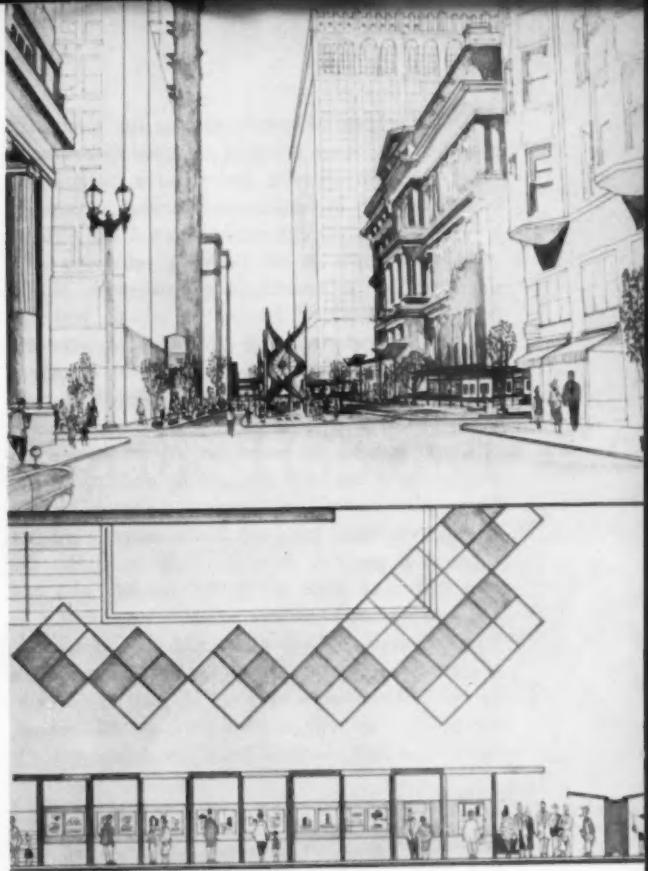
Bedlam is comforting. One thinks of the endless sound of Niagara; the thunder of jets going somewhere so they will have a place to come back from, printing presses, foundries, fourth-graders at recess. But best of all and having the highest taste of civilization is this sweet cacophony of building construction, caused by architects. One hears the hammer's assured "Heh, heh, heh, heh." Or the pile driver's firm "Pocasset, Pocasset." How could civilization march majestically forward were it not for the fine authentically hellish noises architects cause to occur and occur and occur. ▲



A Mall for Downtown St. Louis

by Edward J. Thias, AIA

46



Another city tries a temporary pedestrian mall to demonstrate the merits of downtown shopping without traffic. Although closing off only one block, the area treated includes the sidewalks completely surrounding the Post Office Building.

This is another story of an AIA Chapter's time and effort to further the progress of its city

► A mall to be located in downtown St Louis on Eighth Street between Locust and Olive has been designed by the community development committee of the St Louis Chapter, American Institute of Architects. The mall is sponsored by Downtown in St Louis, Inc, and will be a temporary development or experiment during the latter part of June and early part of July. It was conceived and developed to encourage an interest in the redevelopment of the downtown core of St Louis.

There are many activities and exhibits established by Downtown in St Louis to take place in the mall. Automobile traffic will be closed on Eighth Street; however, a through bus lane is part of the design that will allow normal bus traffic through the street.

The design of the mall was executed by the following AIA committee members: Chairman Edward J. Thias, Dick Henmi, Edouard Mutruix, David Pearce and Kurt Perlsee. The committee spent many hours considering the various solutions to the problem, and proceeded with a composite design coordinated by Chairman Thias. The mall will contain as a central element a fifty foot-long stage, where fashion shows, entertainment and various live activities will be held.

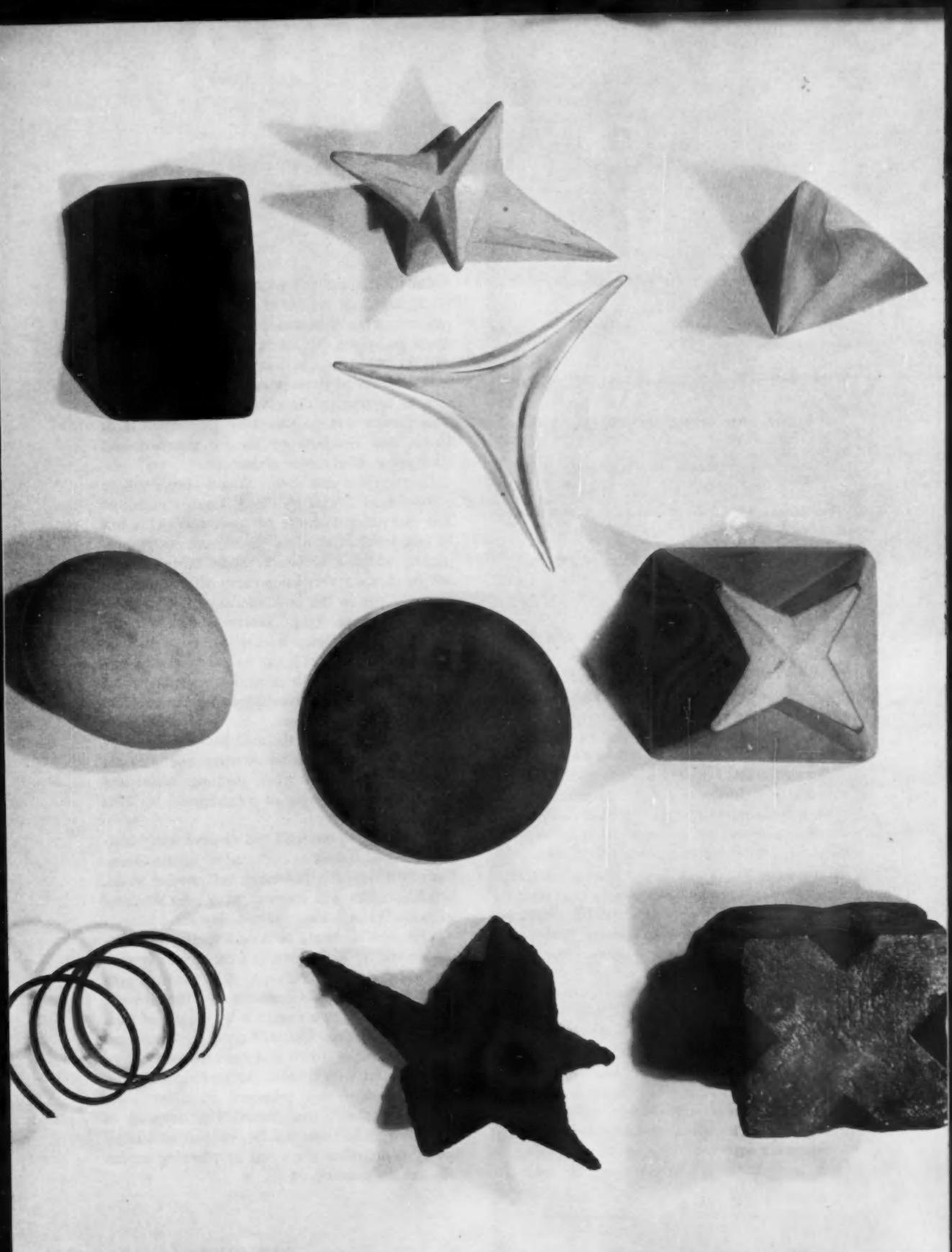
On the Locust and Eighth Streets corner will be displayed an exhibit of a scaled model of the redevelopment of downtown St Louis with many drawings by the City of St Louis Planning Commission. Also displayed in this area will be the scaled model of a proposed office building skyscraper to replace the old Post Office Building. This project was sponsored by Downtown in St Louis, and designed by faculty members and students at Washington University.

On the Olive and Eighth Streets corner will be displayed an exhibit by the St Louis Chapter of The American Institute of Architects. This will be composed of many of the current design projects of St Louis architects. Some thirty projects will be shown representing many of the outstanding buildings in the St Louis area. Both exhibit areas will have light, colorful roofs over the displays. The project is designed on a module basis so that much of it can be pre-fabricated and easily constructed. The exhibition walls and roofs are placed on a forty-five degree diagonal to create more interesting forms.

The central area of the mall which will occupy Eighth Street presents an inviting and pleasant area with the use of trees, planting, tables and benches for the serving of refreshments by Miss Hulling's Cafeteria.

The visitor to the mall will observe thirty-foot-high colorful towers at each end of Eighth Street. Such elements as a newstand, information stand, benches, tables and counters have been designed to make the area cheerful and pleasant.

This project should be a contribution in showing the citizens of St Louis that the downtown core could and may be a pleasant, well-organized area in which to work and be entertained. The area will be brightened with a new look by the use of trees and other planting. The mall concept, which consists of replacing streets that normally carry automobile traffic with a more pleasant environment, has been used and proposed in many cities throughout the United States. The outcome of this effort in St Louis will be watched with interest by many other cities and by planning groups all over the country. ►



Tod Fujihira

THE NATURE OF THE CREATIVE PROCESS

"Meaningful research problems dealing with the psychological aspects of architectural practice are only going to emerge from intensive discussions between architects and psychologists. This means that some architects must gain enough sophistication concerning psychological research methods and results so that these discussions can be productive . . ."

This statement was made at the AIA-NSF Conference on Research for Architecture held in Ann Arbor, Michigan, March 1959. The significance and value of space being given here to such an "unrelated" and highly specialized field may be reinforced by John Gillin who writes: ". . . one of the intellectual curiosities of mid-twentieth century United States (and perhaps Western civilization generally) is that, whereas our knowledge of nature and of material processes has seemingly become increasingly consolidated and integrated, our understanding of man in society has tended toward fractionation into semi-autonomous (and sometimes mutually jealous) disciplines with a consequent obfuscation of thought and theory that passeth all understanding . . ." ¹

Irving A Taylor, a creative social-psychologist who, with his publisher, has generously permitted us to publish the following paper² makes in it an important contribution to three of the most urgent research problems: Identifying, measuring and facilitating creativity. Those who wish to look further will find valuable insights in this book.

PLASTIC PERCEPTION

The two most important aspects of the creative process are *perception*, involved in the exposure stage, and *communication*, essential to the execution phase. This and the following section will be concerned with these two aspects.

The core of the creative process lies in the ability to mold experiences into new and different organizations, to perceive the environment plastically, and to communicate the resulting unique experience to others.

A simple example of plastic perception is found in reversible figures where the same configuration changes in its general spatial relations or where figures and ground alternate. Relatively more creative people show a greater degree of plastic perception, or the ability to see the same thing in many ways. The Necker cube shown in Figure 14 is a good illustration. If you look at the cube long enough, you will find that it can be seen in two different three-dimensional ways. Rotating the cube to a position of complete symmetry, as in Figure 15, allows it to be seen as a two-dimensional design, although it still can be seen in several three-dimensional patterns. Altering it further in a modified Köhler cross, as in Figure 16, produces another reversible field-ground design: A black figure with a white background or a white figure with a black background. It also can be seen in several other ways. Several studies, more directly concerned with flexibility of thought, indicate that creative persons will perceive a configuration in more possible ways and more quickly than less creative persons who tend to rigidly persevere in their first impression.

A more realistic example of plastic perception is found in the way people sort or classify objects varying in function, content and form, as in Figure 17. How will creative individuals classify them? There is some clinical evidence that schizophrenics, brain-damaged patients, and those highly uncreative, tend to sort these everyday objects—airplanes, pencils, automobiles, etc.—by content, as in Figure 18.

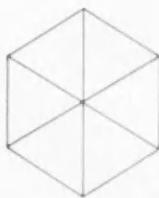
Most people classify objects in terms of functions they serve, indicated in Figure 19, since most

1 *For a Science of Social Man* MacMillan New York 1954

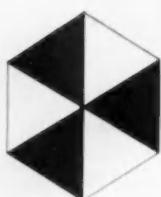
2 *The Nature of the Creative Process* which appears in *Creativity—an examination of the creative process*, a report on the third communications conference of the Art Directors Club of New York, edited by Paul Smith, published by Hastings House New York 1959. A review of the book appears on page 67.



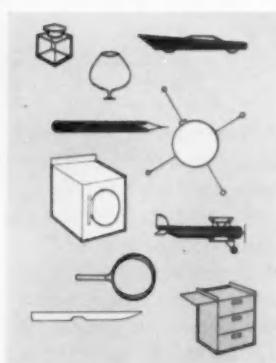
14



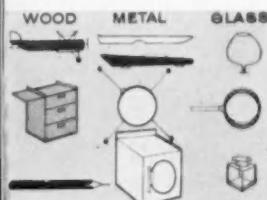
15



16



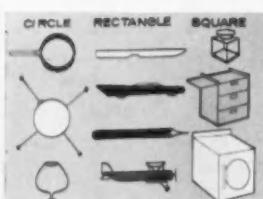
17



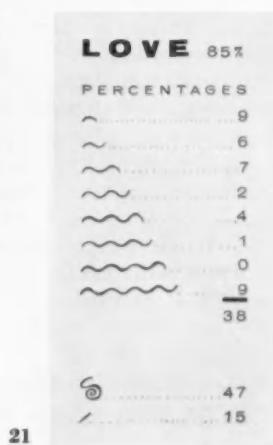
18 content



19 function



20 form



people are egocentrically concerned with the use of objects. Asked what a bridge is, most persons answer, "It's something to cross over." If you ask a child what a newspaper is, he might say, "It's something you wrap up the garbage with."

A third way of classifying the world of objects is in terms of form. There is ample evidence that highly creative individuals show a pronounced interest in knowing and representing the world in form and structural symbols: Circularity, solidity, balance, abstract designs, structural formulas. This perhaps over-simplifies creative thought, but the essential point is that all creative works deal with form and structure: A bridge must be understood by an engineer as a sturdy suspension between two points. Figure 20 shows how the objects can be sorted by form.

Concern with structural relation is evident in the work of highly creative persons in which all objects and their functions dissolve into practically pure abstract form relationships. This is clear in Einstein's $E = mc^2$ formulation of energy and matter which holds true for any object regardless of its function. Non-representational art can also be similarly viewed since abstract space relations are the prime concern. Pure form and spatial relationship are the basic concern of all creative art and science.

Several research questions can be raised with regard to plastic perception: What methods can be used for developing plastic perception? Can the degree of plastic perception be accurately measured? Is it a generalized quality of the individual or is it restricted to certain areas of perception? Can plastic perception be used as a predictive factor of higher-level creativity?

PLASTIC COMMUNICATION

The final stage in the creative process involves complex communicative abilities: Transforming subjective experiences into objective verbal or non-verbal form. A great deal of facility with the "grammar" of one's field is essential. Plastic communication refers to this ability, and is able to translate internal experiences into abstract, or non-verbal symbols, the major concern here.

Those who perceive plastically learn to communicate in plastic non-verbal forms. Practically everyone—not just creative persons—has latent abilities to communicate in this manner. Flexible transformation is the essential factor in the process.

Previous studies by the writer have shown a high degree of relationship between various attitudes, concepts and emotions to design aspects.

Plastic or free communication was demonstrated in a study at Albany where I requested a

large number of students to "draw a line that looks the way love (hate) feels." This type of research involves empathic or physiognomic projection. The two emotions of "love" and "hate" were clearly distinguishable in the line representations. Figure 21 shows that love was defined as essentially a curved line by 85 percent of the more than 100 subjects tested. Figure 22 shows that hate was defined as essentially a straight line by 80 percent. The figures also indicate a systematic progression of zig-zags or waves for the two emotions. In a later study, line representations typical of "love" and "hate" were shown to a different sample of persons who were asked, "What emotion do you associate with each of these designs?" The number of correct associations was significant and high. The communication circuit was non-verbal, plastic perception was thus demonstrated.

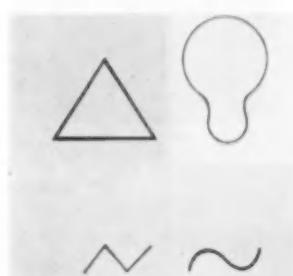
In a subsequent study, I found that abstract symmetrical shapes were also systematically and highly related to concepts (male, female, hot, cold, etc.). Of interest was the way "male" and "female" were depicted. The representations were characterized as follows: Male was represented mostly with straight lines (68 percent of the population), with the weight of the design on top (63 percent), and essentially as a single configuration (74 percent) as shown in Figure 23. Female was defined in curved lines (86 percent), with the weight on the bottom (61 percent), and as a double configuration (61 percent) as in Figure 24. Idealized shapes through structure analysis could thus be extracted from the data.

Noteworthy is the apparent similarity of the love-hate representations to those of female and male seen in Figure 25. Free associations to these figures by a second sample revealed significant relationships to the proper or a related concept (male, female, husband, wife). Correct matching of the shapes to the concepts when suggested was 100 percent.

A more ambitious study was then attempted. Groups of subjects were asked to associate each of ten emotions with a material, shape, color, texture, and certain three-dimensional qualities. Idealized objects were then constructed from the extracted data, shown in Figures 26 through 35. When other groups of subjects were requested to associate emotions to the objects which were projected on a screen, and also to match each object with one of ten emotions, the results indicated that precision in this kind of non-verbal communication is as high or higher than is generally found for verbal communication (where words are defined by one group and another tries to indicate



22



25



26 love



27 hate



28 excitement



29 sadness



30 delicacy



31 happiness

what word is being defined). The precision was 76 percent, the percentage of those who correctly associated object and emotion. Their precision would have probably been higher but for certain limitations in the construction and filming of the objects.

"Love" (Figure 26) and "hate" (Figure 27) both communicated highly. Note also the consistency with the line and shape representations. "Excitement" (Figure 28) had the highest degree of communication precision. "Sadness" (Figure 29) was low, and frequently interpreted as "trust." "Delicacy" (Figure 30), "happiness" (Figure 31), and "calmness" (Figure 32) were all very high in communication. "Strength" (Figure 33) and "trust" (Figure 34) was fairly high, while "suspicion" (Figure 35) was lowest, frequently confused with "delicacy."

As a general conclusion, then, these studies suggest that non-verbal forms of communication may be more effective in transmitting human thoughts and feelings than the familiar verbal and formal types, although the former are not usually considered in this way. The reason may be that perceived forms precede verbal languages and thus non-verbal communication and the direct stimulation produced are largely taken for granted. Actually a great deal of plastic communication and empathy occur between people, although it may not be consciously recognized. These studies also suggest that the distinction between "public" and "private" symbols is misleading.

Plastic or free communication therefore can be demonstrated in simple, abstract lines representing various emotions, in abstract symmetrical shapes, and in abstract three-dimensional objects varying in color, form, texture and other characteristics. It is surprising how unaware most people are as to the degree of precision involved in communicating non-verbal abstractions, due largely to the deeply ingrained belief that meaning and communication are possible only through formal and verbal language.

Some of the major research questions here are: To what extent is free, non-verbal communication more precise in communicating than formal, verbal language? To what extent can plastic perception influence persons without their awareness? How successfully can plastic communication be taught?

Since the publication of the original symbols, the author has, on the basis of additional research data, developed the non-verbal "synonyms" shown on page 48. (Objects constructed by Allan Turoff, industrial designer.)

TRAINING FOR CREATIVITY

Finally, with regard to training for creativity, I would like to point out that the evidence, as suggested from various studies, shows that group methods are not the most effective means of producing the highest forms of creativity. Frequently, when a group of individuals come together, a great deal of superficial (horizontal) association, rather than depth (vertical) probing results.

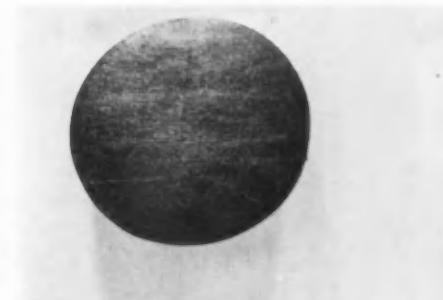
In training for higher levels of creativity, I would first suggest the importance of understanding communication, not in the usual sense, but including the non-verbal forms as well as language. By "communication," I mean here the ability to relay predictably some idea or notion from one person to another, whether it be through walking, talking, gestures, the stroke of a pen, a line or a formula. Certainly learning how to get to the basic assumptions underlying the linguistics of our communication system is most important; once one can get to an underlying assumption, discovery of a new assumption is possible.

Secondly, learning to see things in terms of structural or spatial relations is also very important. Highly creative individuals are largely concerned with the way things relate. The important thing about a structural or a spatial symbol is that it is a finite thing which can capture an infinite number of things.

To talk of gravity is not to talk about one feather in the air, or a truck moving down a road, or a planet moving through space. Abstract art at its best very much fulfills that same purpose. Capturing an infinite concept in a finite symbol is probably one of the most important psychological aspects of an esthetic experience.

If one understands the principles of creativity, what one can and cannot expect, these understandings synthesize with experience and can only enrich one's work that much more. I would say that those who do not have psychological insight into the creative process are not the best prepared. They may be greatly hampered by such implicit questions as, "What am I doing?" "I'm not conforming; will I be chastised?" and other problems which could have been resolved by understanding the nature of the creative process. This understanding must be more than intellectual; it should be understood and experienced as an emotion, a point of view, a deep-seated attitude and a way of life.

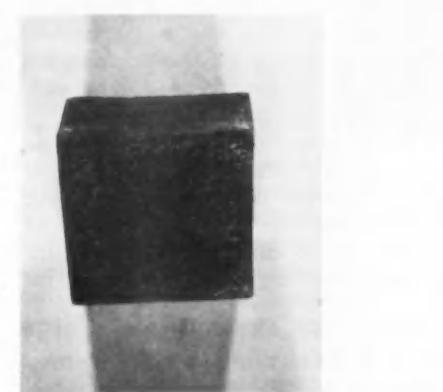
The great creative men have given ample evidence of their intimate psychological understanding of the very processes which allow them to be creative.



32 *calmness*



33 *strength*



34 *trust*



35 *suspicion*

The Fine Art of Architectural Deception PART I

BY HARLEY J. MC KEE, AIA

► In these days of articles which are made to be sold but not to be used, when doctors pass out tranquilizers, wrestlers grunt and groan, public officials tell us how well everything is going, and show business keeps the brass-plating industry busy turning out trophies, what is the profession of architecture doing to keep up with the rest of the world? Are we getting into the act? Are architects meeting the needs of their clients squarely, or just kidding them along? We all know the answer, of course; we know what a complete and conscientious service the profession is giving, but how much easier it would be just to fool the public the way other people do!

This is an age of specialization, and who would dare to question or criticize the high priest of architecture? Architects don't even criticize each other. (They know how but refrain because of ethics.) They should be able to convince the client of almost anything when they turn on the charm!

Suppose people were to form their impressions and opinions of architecture by looking at photographs in magazines, for example. Who knows what the plans are like? Who knows, who cares what the building is used for as long as it is photogenic? Isn't the photographer the architect's best friend? When the walls are too dark and the sky is light he can just put on a red filter — the picture will show the walls glowing softly against a coal-black sky. The administration wing is more attractive than the sixty-acre machine shop behind it; move up close with the wide-angle lens and the shop will hardly show at all. Better yet, have a few professional models on hand to pose in front of the entrance, to give it the proper scale.

Here is a photograph of a 200 by 300 foot interior; no columns interrupt the smooth flow of space. Exactly eight plywood chairs and four

coffee tables are poised with magnificent precision in the center; in the far corner, half concealed by a bamboo screen, is a horizontal marble slab carrying a small rosebud in a glass vase. What a tranquil masterpiece. What simplicity! As a matter of fact, the day after this photograph was taken, 500 clerks, 1200 stenographers and 200 executives moved into the space with all their furniture, machines, files and office equipment, and the janitor looked in vain for a place to store his brooms. (Editor's Note: Eventually he leaned them against a corner window). A few months later a lot of movable partitions were installed to divide the area up into rooms. What a desecration of the architect's masterpiece! What an insensitive and undeserving client. He should be blacklisted. He should never be permitted to enjoy the services of an architect again. Fortunately the public need never know anything but the beautiful photograph taken before the building was put to use.

Since architecture is considered a fine art, rendered perspectives are prepared for the better classes of buildings. The client, who is after all just a layman, is thus able to "visualize" the design without being distracted by all of the mean little details that might worry a realist. The delineator can choose a stationpoint that is not too commonplace, or even one which is not accessible, and at the same time improve the apparent proportions of the projected building. Here is a rendering with human figures four feet high seen through the glass wall of the vestibule, accenting its monumentality; for consistency the automobiles in the street are drawn ten feet long. The sunlight impinges brightly on the north wall, while a delicate pattern of cloud shadows flits across the glass envelope. This is much more interesting than the reflection of the elevated railway across the street would be, and also breaks up the monotony of the fenestration. A chimney and penthouse have been left off the drawing because everybody knows that such features are seen never in perspective anyway. All of the awkward corners of the



building are miraculously hidden by trees, serving to focus attention on the essential features.

Our profession should not be content to touch the public through the graphic mediums alone, since verbal communication also offers such great possibilities. One must first consider the type of client to be influenced. Many people are not rational, or at least do not behave rationally; they will understand intuitively why their building should be shaped like an oyster or a pumpkin, why it should have a glazed brick or aluminum screen for pigeons to perch upon, or why there should be a narrow aperture between the top of the walls and the ceiling. They will readily accept all of the architect's explanations as long as they are imaginative ones. These clients, needless to say, are ideal for young architects just beginning practice.

The pseudo-intellectual demands more argument for his money, however, and needs to be convinced by carefully chosen sophisms of theories of an intricate nature—the more intricate the better. Explanations of how the form of every detail follows some obscure function are particu-

larly effective. So are analogies and theories derived from some other art—painting for exterior designs and sculpture for interiors. Architecture is really nothing but walk-through sculpture, isn't it? Distribution of areas, modulation of textures, psychic vehicles for release, space ritualism, monolithic unities and inner-directed tensions are of great interest to this type of client, and need to be explained to him at great length; in turn he will garble them up and expound them to all of his friends (only once to each friend, presumably). He will be delighted to learn that the building you are planning for him will be fresh, clean, friendly, honest, flexible and organic. He is a sucker for familiar platitudes like "a building should express its owner's personality," "happy buildings make for happy people," "space should flow around the interior, the inside out and the outside in," "the first cost is the last cost" and "nothing is too good for the public."

Occasionally the architect encounters a real intellectual; this type is very difficult to deceive, but I will try to indicate some practical approaches in Part II. ▶

Nature of Research for Architecture

What is Research for Architecture and why do we need it?

► We cannot assume that you have all been able to read the reports of our work conferences at Ann Arbor last year which appeared in the September and October 1959 issues of the *AIA Journal* and in the complete proceedings*, although this preparation would make for sharper focus. It seems better to start by saying what research for architecture (in our considered sense of the term) *is not*.

It is not building or construction research. It will not result directly in a better window, curtainwall or other product. It is not laboratory work on cement or glass or basic research in the properties of plastics or the corrosion of metals. These are not the areas of the architect — but such studies and developments should be in answer to the architect's needs and problems. Research for architecture, then, is not directly concerned with building materials, products or construction technology—much as we need better curtainwalls, not biased by attempts to market as much stainless steel, plate-glass or baked-enamel as possible. We are often assembly-designers of the products other people find profitable. Mitigation of this, however, is one purpose of the AIA Building Information Services, of which the "*Building Products Register*" is an excellent first step. This is still not the area of research for architecture.

The architect's contribution to building is to bring it into improved relationship to human beings. We know very little about this. We have learned certain things about the dimensions and capabilities of the normal human frame and its muscles, fatigue and the conditions under which

we feel comfortable. Buildings, and the spaces between and around them, constitute our architectural environment. Human beings, as individuals or groups, constitute our sociological and psychological environment. We have the technical means of producing any desired combinations of conditioned space: Conditioned for visual, thermal, acoustic, tactile or other sensory effects and functions. What do we want to do? What do we need to do to meet a client's program, including perhaps his unspoken need for beauty?

This is our predicament today as architects and the reason the AIA Committee on Research has spent some six years in developing the plan now submitted for the Institute's serious consideration and implementation.

Research for architecture, therefore, is concerned with the essence of your own professional responsibility—the matters which are especially the problems of the architect which no one of lesser training can be expected to comprehend or be able to see as a whole. It is aimed at the designed integration of the entire environment and must include study by competent consultants, with architectural guidance, of the behavior of human beings as well as their physical capabilities. It must find out more about space, scale, and other design factors, as well as the requirements of various building types. Planners of schools need to learn much more about children and how they learn. Planners of hospitals need research on therapeutic environments.

When we first approached the National Science Foundation for funds, there was great concern over their limitation of grants to "basic research" and a polite rebuff on the ground that "architecture is applied, not basic." We were convinced, and with help persuaded them, that there were fundamental problems in our profession just as

**Research for Architecture* Proceedings of the AIA-NSF Conference, Ann Arbor, Michigan, 10-12 March, 1959; 127 pp; available from AIA Documents Division, 1735 New York Avenue, NW, Washington 6, DC \$3.00

basic as in their not-so-pure science. The Ann Arbor conference, which they supported, confirmed this conviction and the printed report includes a long list of suggested projects (see October 1959 *AIA Journal*). Naturally, these are of unequal value and researchability. They are a reduction from several hundred suggestions.

Our committee's directive from the AIA Board includes making research "results available to the profession." This implies a continuing information program: Collecting, correlating and reporting studies. This has never been done. We have had great difficulty even in finding out what the schools of architecture were doing in this country that might be considered research for architecture.

Another aspect of research for architecture is that of the architect's relationship to his client and the various sociological and psychological factors involved in interviews—finding out the

client's true needs, advising him, and matters concerning management of projects.

Research for architecture, then, is for professional and public benefit. It is basically concerned with *people* just as the architect's concern in fire safety is rightly for human life rather than preservation of property. It requires specific Institute departmental effort, adequate staff and budget and above all patience. There will inevitably be unproductive beginnings with some ideas which do not yield quickly. The oil business has been built upon relatively few wells and many dry holes.

We are convinced that research for architecture is a fundamental need of our profession, and an Institute activity which is almost too late to avoid encroachment by other groups which have come on the scene with partial training, partial ethics and part of our rightful work. ▶

E.P.

BEAUTY UNDULATES

The pace of progress stays not nor abates,
Though men, who see the loss of beauty, cry
Against the passing of loved links that tie
Beauty to earth.

As the incessant din of progress verberates
And ears become accustomed to discord
And lost is sense of closeness to man's God,
Beauty leaves earth.

When eye on surface beauty masturbates
The sense of meaning fades and man's delight
Grows tenuous and timorous and a blight
Pervades the earth.

So struggling man in channels separates
Endeavor for the training of the mind
And science surges leaving art behind
As lesser worth.

While channelled thinking progress generates
From economies to psychology
Still science waits upon philosophy
To free the earth.

Lament for lost appearance underrates
The surge of inner soul; for man's defiant will
Can change environment and needs fulfill
For soul's rebirth.

Life without beauty no man tolerates;
And life that's purposeless is never gay.
And shrinks when selfishness predominates
But Beauty rises, when man finds his way,
And blesses earth.

And so man learns that Beauty undulates;
She follows understanding but she leads
Perceptiveness to nourish fertile seeds
To grace the earth.

For Beauty is the flower that consummates
Conviction when life's channelled trends are good;
But Love comes first, ere life is understood
And man, the creature who coordinates
Learns Beauty's worth.

Yes, Love comes first, then Beauty, as she should
Resistless as the tide, that ebbs but can not bide
Rises to bless the earth.

And when Love recreates and Nature consummates
Beauty expands and brings renewal like first
Spring's
Reflowering earth—reflowering earth.

Suggested by the AIA San Francisco Convention
ARTHUR C. HOLDEN, FAIA

The Effect of Capital Gains Tax on Capital Expenditures

by Robert Ingle Hoyt, AIA

► For some time I have wondered about what we may call our "Paper Plate Society." I have wondered so deeply that my brow has furrowed and my loving wife has asked what I was worried over.

The automobile seems a commonly accepted subject for the throwaway concept and low-cost factory production has made it cheaper to build a new machine, component or part than to repair an old one. In happy rebellion I drive a 1929 Packard phaeton most of the time, for which I have to make parts now and then, but the rest of the darn car stands up wonderfully and it runs as it should.

We throw paper plates away in this country, instead of washing dishes, although the pulp waste would not be accepted in the economics of other countries, and it can likely be argued by our conservationists that it should not happen here. Thus you can see that I am in over my head on an overall national scale, but I come up for air now and then in the building industry and it shocks the curl out of my hair.

A client recently asked me to design a motel for him, one so good that it would still be the best one in his town ten years from now. There are one hundred motels in that town now and there will likely be another one hundred built in the next ten years. After three martinis I think I do good work, but at first blush I knew I could not face ten years of development with that kind of confidence without drinking the whole pitcher and I know what that would do to me. I went to a good school and they trained me thoroughly.

But it ain't that bad—it's easy. After talking with people in the motel business I found that I had about a two-to-one chance of bringing off the miracle my client asked for. The details are shocking.

In this fast-growing state of California there are a whale of a lot of motels being built and about ninety-five per cent of them are being built only to obtain a fair set of books, after which they will be sold for a capital gain profit and to blazes

with the guy who gets it for he will do the same. This will happen for a period of years while prices are rising and growth and travel violent. These buildings are cheated of sound design and construction for a lasting operational efficiency and low maintenance and what they do to the neighborhood and the community is another story and much worse for they load the urban scene with dated under-building that assures community deterioration in ten years. Although many motels write off their principal investment in five years, others are so badly arranged and managed that they get in financial trouble and banks let them have only about thirty per cent of the cost. This puts them in the hands of several statewide motel banking specialists who are cleaning up like crazy this year.

There are now and again some people who like the motel business and wish to stay; about five per cent. Of these about three per cent can't get the cash, since ninety-five per cent of the construction in California is designed by other than architects and presumably substandard, the likelihood of a motel owner, short of funds, finding a good design is limited.

The figures I have used are intended to be relative only and are not statistically supportable, but the help is needed to make a point that I feel should be made.

What is happening to our buildings and what is happening to the development of our communities as a result of a stupid Federal tax arrangement? Is the cost likely to prove unbearable? Is the society of the paper plate going to spend many times more on the paper than it would on the finest china, breakage considered?

Is this good or bad? It is a subject upon which economists, planners and architects may have some sincere thoughts. Will these bright minds and deeper experiences come forward with some expression that might do our future benefit? I suspect I am hardly alone in my present confusion and others would like to share a few views. ▶

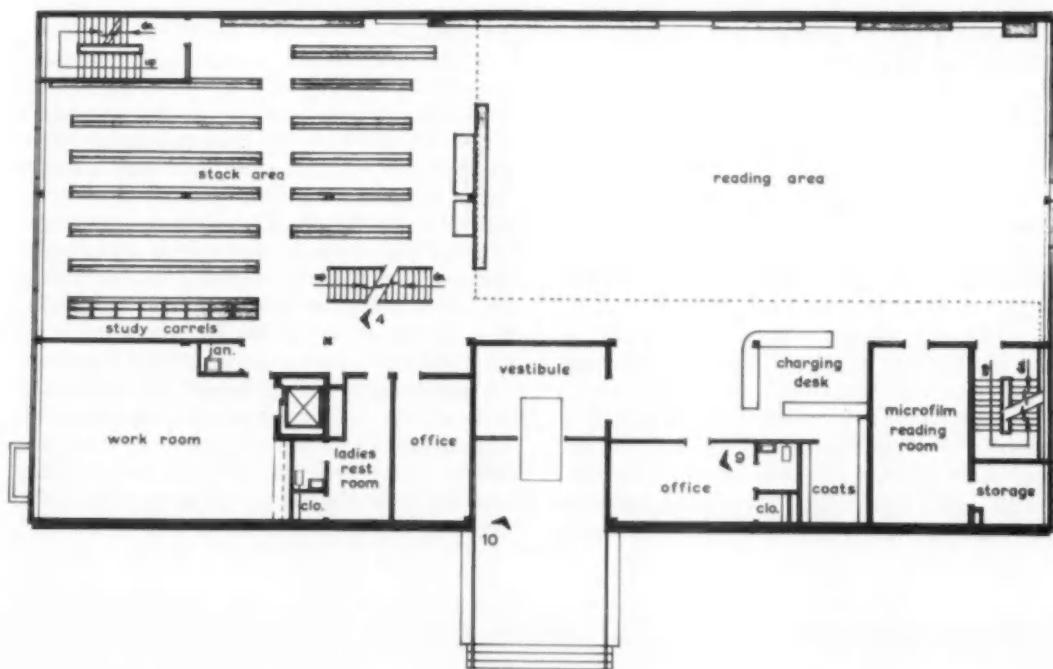


Favorite Features of Recently Elected Fellows



JOHN HUNTER, JR., FAIA
of Hunter, Campbell & Rea,
Altoona, Pennsylvania

PIUS XII MEMORIAL LIBRARY
St. Francis College,
Loretto, Pennsylvania



DO YOU KNOW YOUR DOCUMENTS?

FOR INSTANCE—Fire Insurance

BY WILLIAM STANLEY PARKER, FAIA, *Consultant to the Institute on Contract Procedures*

► By law the insurance company, upon paying a loss, is subrogated to any rights the insureds may have to sue the person responsible for causing the fire, the "insureds" being those named in the policy.

In order to accomplish this protection the provisions of Article 29 of the AIA General Conditions included in the 1951 Edition a provision that the General Contractor and all subcontractors should be named as insured jointly with the owner in all policies. Since by such a procedure they would all be "insureds" they could not be proceeded against by the insurer. Because little if any attention was paid to this provision when fire insurance policies were issued, all subcontractors were subject to possible subrogation suits, and they were also permitted to recover from the owner if they suffered a loss in such a suit. The owner's interest was also seriously affected.

To provide protection against such suits, the 1958 Edition provides a general waiver clause by which the owner, General Contractor, and all subcontractors waive all claims each against the others for damage caused by fire covered by the insurance. It is held that the insurance company, on paying a loss, is subrogated to all rights the insured may have at the time of the fire. If they have all been waived before the loss occurred there are none available to be used by the insurance company.

To make this protection automatic and positive, it is desirable, and by some held to be necessary, that there should be in the policy the standard subrogation clause stating that no such waiver before the loss will in any way invalidate the policy. In January 1960 there were some twenty or more states in which the subrogation clause was *not* included in the standard Builder's Risk-Completed Value Form then in use, leaving in the minds of some insurance men and others a fear that this might permit a claim, after a loss, that the waiver clause did invalidate the policy. There were equally positive counter-opinions in the insurance field which held that if all claims

had been waived there simply weren't any available to the insurance company.

In order to solve this problem, the Institute wrote to all local rating bureaus involved, but more importantly discussed the problem with the Inter-Regional Insurance Conference in New York which, on February 1, 1960, took over the advisory functions, nationally, of the several regional bureaus that had been operating. The Conference wrote to all the state rating bureaus involved suggesting the desirability of cooperating with the Institute in its effort to create a standard condition throughout the country.

On April 6 final word was received that all the states involved had agreed to include the subrogation clause in their standard policy, as soon as a new printing was needed, and in some cases it was already in the hands of the printer. Just how long it will be before the new forms will be in actual use in all these states cannot be definitely stated but it should be relatively soon.

Until the new form is available, the architect should notify the owner and his insurance agent that the subrogation clause should be attached to the policy. This is agreed to in all the states.

After the new forms are all in use, the entire question can be forgotten. It would be desirable for the architect to indicate that the policy used should be the Builder's Risk-Completed Value Form, which is the standard form that normally would be used for buildings in course of construction. It was devised at the suggestion of the Institute and put into use in 1940. With the subrogation clause included in the policy, and the waiver clause in Article 29 of the General Conditions, the interests of all parties connected with a construction job anywhere in the United States are for the first time fully protected and subrogation suits are not possible. Thus this effort of the Institute that started with the Spokane church fire in 1947 and the resulting subrogation suit that cost the contractor and his subcontractor \$35,000, has been brought to a conclusion. □



From the Executive Director's Desk

► An accolade cherished by us workaday mortals is the simple appellation, "distinguished citizen." The first and, to the best of my recollection, the only time I was so designated occurred when I was relatively young.

In 1926, the late Kenneth Day and I decided to jointly leave our respective nests (McKim, Meade and White; and Zantzinger, Borie and Medary) to try out our wings. So in a perilously short time, each having acquired a promise of a commission (both of which promptly fell through as soon as the partnership papers were signed), we found ourselves occupying the third floor back of an undistinguished rookery, a trifle off the beaten Philadelphia track. The structure housed three other architectural firms, a doctor, a dentist and a colored lady janitor with a semi-permanent boyfriend, the last a cheerful rascal and agile, a quality which stood him in good stead whenever the lady threw the sharper kitchen cutlery in his direction.

So unversed were we in the ways and priorities of architectural practice, that we spent more time selecting wallpaper and paint for our modest quarters than in setting up our books. We fancied we knew something about paint and wallpaper and admitted we knew absolutely nothing about setting up books, nor were we particularly interested in prosaic chores which obviously had nothing to offer to two young men on their way to eminence. We were buoyant, confident and possessed of loyal wives who persuaded our respective in-laws that the chances of our ending up in the poor house were about 50-50 and not 100% as our in-laws believed. We each went through a trying day with a mother-in-law.

Being brilliant, if undiscovered, artists we expected that clients would beat a path to our door. We sat hyper-ethically in our offices waiting to be tapped until it became obvious that our only likely visitors would be the postman, life insurance salesmen and occasionally members of our families. The latter would walk in, shake their heads and wander away muttering. So we sallied forth and

actually did land a couple of decent jobs from old school friends, both stockbrokers.

One day along with the usual pitiful collection of uninteresting circulars and telephone bills, the postman brought a letter addressed to me in person. Now this letter was on engraved stationery and it came from the President of the Reading Railroad Company. In the nineteen-twenties in Philadelphia, a president of a railroad company strode majestically down Chestnut Street with his head high and his chest thrown out—a man of status; a commanding figure among men, quite different from the railroad president of later years who would slink along Sansom Street with coat collar turned up and hat pulled down.

Mr Rea, the President of the Railroad Company, a man of dignity and senior years, invited me to have lunch with him at the Rittenhouse Club along with a dozen or so other distinguished — repeat distinguished — citizens. I gleefully showed the letter to my partner just to let him know how lucky he was to be occupying the same room with me. I answered immediately. As no letter came informing me that through some error on the part of his secretary the letter Mr Rea had written was meant for one of my older cousins, I turned up on the appropriate day and on the dot at the Rittenhouse Club.

Mr Rea greeted me in a kindly fashion and introduced me to the distinguished company. They were distinguished—all money people—bankers, prominent lawyers and such. Only one of them, a fraternity brother of mine, seemed puzzled enough by my appearance to ask in a whisper how long I had been distinguished.

When luncheon was announced I took my place modestly at the foot of the table.

The whole affair made such an impression on me that I remember the meal in detail—Philadelphia black bean soup, Delaware shad roe with bacon, fresh asparagus and strawberry ice cream. A good Philadelphia luncheon difficult to come by now when, thanks to deep freezing, all fish

tastes uninteresting and alike, when the spirit of asparagus is broken by packaging and when ice cream comes from and tastes of the assembly line.

I was still in the dark as to the purpose of the luncheon and just what form my distinction was to follow but, being well fed, I had acquired a degree of confidence which stood me well. In fact, I had come to the conclusion that I was pretty much of a person.

Mr Rea finally explained, but far from clearing up the mystery the explanation only deepened it for me. He had, he said, brought us together as the nucleus, as an ever-expanding brotherhood of distinguished citizens, to raise money for the Pennsylvania Museum of Art—that project at the head of the Parkway, the construction of which had barely begun.

He announced it was to be a beautiful building and I, not being its architect, overcame an inclination to disagree and went along with the rest and admitted its beauty. We were then addressed by a young man, a stranger who turned out to be an executive, doubtless a vice president of a money-raising outfit famous for success with universities, churches and other dignified and laudable enterprises. He was silver toned. I admired, even envied, his persuasive delivery and erudite vocabulary. He had us all pretty well convinced that we were very important people and that the citizens of Philadelphia were going to have a tough time turning us down when we hit them for contributions. My experience as a money-raiser (especially for myself) was not very extensive and my success practically nil.

I was given a sales kit and a list of those upon whom I was to call. Then it came over me why I had been marked for distinction. My list of some ten names was made up of an agreeable collection of affluent citizens and at the bottom of the list was the name of my Cousin Will. Now Cousin Will was President and Chairman of the Board of Philadelphia's largest and oldest trust company, a respected but distant banker. He was a kindly austere man, but not the most approachable banker in Philadelphia, even by his colleagues. The banking avenue had therefore been discounted and some bright soul had hit upon the family entrance.

I was pleased to accept the assignment as a tribute to my valor overlooking for the moment that angels might fear to tread my prescribed path.

I looked at the other names on my list to pick out one most suitable for a trial run and came upon that of a wealthy and somewhat senior neighbor. At that time we lived outside of Phila-

delphia in a fox hunting country, not in a baronial mansion of the sort occupied by Mr Bodine but very modestly in a rented tenant house. He was about a mile up the valley, a lovely walk on a spring evening. I got home and explained to my incredulous wife that she was married to a distinguished citizen who was about to set forth on his first assignment as a distinguished citizen. I had taken the precaution to change to a dinner coat although we had dined rather simply and informally at home. Mr Bodine, a retired master of fox hounds would never have dined informally. Whenever he had company, he dressed in white tie and scarlet. He wore pink in the field. I went rather cheerfully up the valley with my little pledge card which I fully expected to bring fulfilled as an evidence of my salesmanship and charm. In fact, I did not see how Mr Bodine could possibly refuse to contribute to the housing of the arts especially as he was to be approached by a distinguished citizen.

I was admitted to the house by the butler and invited to sit with Mr Bodine over a brandy, a cultivated custom. Somehow or other I could not seem to get around to my mission. I think I would have gone on forever making conversation about fox hunting, a sport about which I knew practically nothing, had he not looked at me rather quizzically and said, "You came here to ask me for money, didn't you?" I weakly admitted I had. And he said, "What is it you want me to contribute to?" I explained to him, using the arguments which the young man had used at luncheon, and then handed him the propaganda. With scarcely a glance, he reverted graciously to our country conversation on spring ploughing and the spraying of fruit trees. My mission was not accomplished.

So when I went to call on Cousin Will it was with a noticeable lack of the original confidence. Now calling on Cousin Will was no simple matter—you just did not walk into his bank and say you wanted to see him. Preliminary arrangements had to be made with his secretary. On the appointed day and hour you would be ushered into his clean, cold sanctum. Although the bank was designed by a well-known member of the Institute, Cousin Will's strength of fitness was such that the banking room had all the charm of an over-sized barber shop and was just as sanitary. My Cousin Will was not a disagreeable or ferocious man. Quite to the contrary, he was essentially a good man with white hair and beard, bespectacled and when not occupied with running the bank or going to church, he played the cello. He

was a quiet man—aloof, austere and not given to banter. He was conservative in habit, in banking philosophy, and in his architectural predilections.

His method of selecting an architect was rather unique and although his method technically adhered to one of our recommendations; namely, direct selection without monkeying around with the competition or such, his criteria for evaluating an architect's capabilities were those which I would certainly not commend. As far as Cousin Will was concerned the building was eminently satisfactory. It suited him down to a tee in spaciousness, in austerity and in frigidity. The way Cousin Will went about it was to come in town from his suburban house on Washington's birthday and personally visit the principal architects' offices until he found one open and running on that legal holiday. The architect who worked on a holiday was the architect who got the job.

All that is recorded of Cousin Will's conversation with the architect is to the effect that he was looking for an architect industrious enough to be working on Washington's birthday.

He never sought my advice much less my services for he considered that any member of a banking family like mine who got involved in anything as frivolous as architecture would not have an opinion worth listening to.

Well, I sat opposite Cousin Will, took a deep breath and launched forth. He did not seem to be particularly surprised, only bored.

Certainly Cousin Will had other matters on his mind than having to listen to his young cousin's painful plea for a contribution to the Pennsylvania Museum of Fine Arts. Tiring of my monologue he broke in gently with, "Can you give me any good reason why I should contribute?" Remembering salesmen's point number three, I brought in the little school children sequence—"Think what this means to the little school children of Philadelphia."

Well, that did galvanize Cousin Will. The reaction on his part was immediate and though he was a man who eschewed blasphemy or even violent language, I think on that occasion he came about as close to it as he ever had in his upright life.

The burden of this anguished attack was why must everything be saddled on poor, long-suffering little children? Why can we not leave little children alone? Let them develop naturally and not warp their minds and ruin their futures with such things as fine art museums. Why should we frighten little children with forcing them to walk through the cold halls and on the hard floors of an art museum? Why can we not let them stay



home and have fun? However, he said, "I know that I must give something and I know you would like to have me give through you. I know that my position demands that I make a contribution, so if you will leave and if you will give me no further argument, I will sign up for \$1,000." I got his signature on the line and got out as fast as I could and went back to the campaign headquarters where I proudly showed them my Cousin Will's pledge card with \$1,000 marked against his name.

Did I get congratulated or thanked? Was my hand warmly shaken? Was I slapped on the back? Nothing like that happened. Instead, the account executive, who had not even gotten up from his seat, raised his eyes languidly in my direction and said, "\$1,000? We had him down for \$5,000."

I am still hoping that someday I will again be addressed as a "distinguished citizen."

PLAN FOR EVERYMAN

He who tarries in a tower
Has perspective, though no power.

He who hurries in the street
Little sees, though feet be fleet.

Towers we need to give us view,
Streets so we can go and do.

Man In Street is always there.
Tower Self is all too rare.

THE STUDENT'S PAGE

A REPORT FROM: RICE INSTITUTE

► The Student AIA Chapter, the Architectural Society at Rice, had its beginning just prior to 1920 with only a few members from a very small department. Because of a limited enrollment, the department has remained small, eighty-six at present, but the membership has grown to thirty-five members on this campus of 1800.

Early each Fall, the Student Chapter gives a reception honoring the Freshmen and introducing the faculty and other students to them; this Spring we sponsored the Student-Faculty Art Exhibit in our continuum of introducing the "laity" to the enrichment that art and architecture has on their lives.

Our "pet" project, however, is the maintenance of the William Ward Watkin Traveling Fellowship. Support is asked from local and national architects, alumni, and all those interested in architecture in our drive to raise \$2000 for this fellowship. This annual award is given to a graduate or alumni of the department in a special design competition, for further research and study abroad.

At the climax of the drive, the Student Chapter sponsors an all-school costume ball, Archi-Arts, which includes a pageant depicting some aspect of the theme and portrayed by Rice coeds modeling elaborate costumes designed by members.

This past September brought a new curriculum to the Architectural Department at Rice; one which embraces all phases of the profession of architecture, with the basic intent to supply a framework of training and experience in every aspect of architecture and practice likely to be encountered.

What It Is

The "problem" forms the entire basis of the instructional method with each piece of work delving into five general areas: Theory and Philosophy, involving the study and understanding of people, of ancient and contemporary history and the development of a personal philosophy of architecture; Profession and Practice, involving those aspects of architecture related to bringing about its accomplishment in current day social, political, and economic situation; Design, involving the processes of an architecture; Construction, involving the elements of and the means to an architecture; and Communication, involving the methods and systems of communicating between people of architectural ideas.

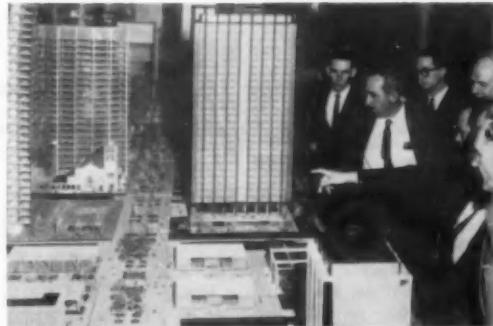
This rather thorough problem is further divided into categories at all levels of design to present a continuity throughout the Department and to incorporate weekly lectures given by outstanding persons in their profession, explaining the relationship of architecture to that branch of programming we are then pursuing. These categories, divided into six week problems include habitation, education and scientific, religious and inspirational, social and recreational, service and institutional, and commercial and industrial. For example, while the Freshmen are designing the interior of a house, Design 2 is working on a motel room, the third year, a residence, the fourth year, an apartment project, and Design 5 is developing a lakeside hotel. Each one of these problems require a philosophical analysis, cost estimate, mechanical and structural diagrams, specification, some working drawings, and an exploration of various media to enhance the value of the basic design.

The five day break between major problems allows time for two separate juries on each problem, while the students do research and programming, as well as field trips and a "solo" eight hour sketch problem. The competition is stiff. The results rewarding. ◀





Fuller Dome



Mall Project

A REPORT FROM: U. OF HOUSTON

► Recently an experimental clear plastic dome was erected on the campus which was designed and supervised by Buckminster Fuller during a five-day stay at the University of Houston. The structure was assembled by the fourth and fifth year classes with the help of Dr Eugene McMillin, who was the faculty advisor.

Materials for the project were furnished by Rohm and Hass Plastic Manufacturing Co. of Bristol, Pennsylvania. A tension ring provided the base for the dome and the $\frac{5}{16}$ " Plexiglas was put in place by using a gin pole.

The original experimental dome failed in tension as a skin structure (due to an extreme temperature difference during the erection) when the bolts sheared the plastic. Wooden triangles of ash were then added to the structure to serve as a skeleton.

This dome still stands on the campus.

Mall Project

A class of third-year students chose as a nine-weeks problem the model construction of a twenty-four block section of downtown Houston as it will possibly look in 1980.

Each student was responsible for one block of the model construction and furnished materials for his own work. The class, acting as a board, decided which existing buildings would be saved for architectural or historical reasons. Rules were set up for the mall area which completely eliminated vehicular traffic except in the emergency of fire. The class voted to eliminate neon signs and to have portable store advertising which could be removed after closing hours. All lighting, independent of store lighting, was underground.

Burdette Keeland, sophomore design critic at Yale, was the design critic for the project.

The project, called "Main Street 1980," was displayed for a time in the M.D. Anderson Library foyer and then in the main lobby of the Houston City Hall.

Civic Center

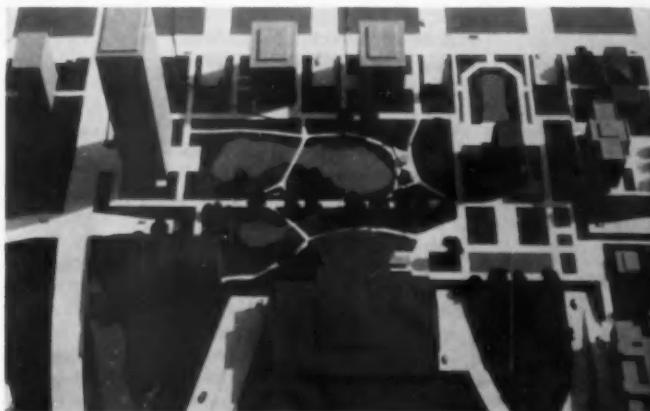
The City Planning Department of Houston suggested as a problem for the College of Architecture the development of a Civic Center for downtown Houston. The fifth-year class took the challenge as a four-week project.

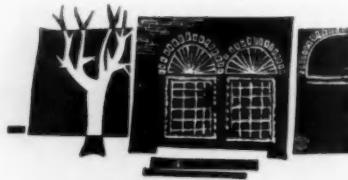
Each student did a model for the nine-block-long development. It included an Auditorium, the existing City Hall and a City Hall extension, Library extension, and a Texas State Office Building.

The Jury for the project was composed of members of the City Planning Department of Houston, several Houston architects, and members of the faculty. Howard Barnstone was the design critic for the project.

The models created much comment when they were displayed in the main lobby of City Hall. ▲

One of the civic center models





LIBRARY NOTES

► American books on architectural practice, dealing with the myriad problems concerned in running an architect's office, are relatively few. Consequently in this list foreign publications have been included as well. Books on contracts, which are basic to an architectural practice, are included as well as those on specifications. These latter, while primarily technical, are closely related to the contract and seem to merit inclusion here. Concluding the list are the books dealing with the legal aspects of the architectural profession and building industry, of which there are quite a few. All the above may be borrowed on the Library Loan Service at fifty cents for the first volume, and twenty-five cents for each additional. G.E.P.

Practice

AMERICAN INSTITUTE OF ARCHITECTS.

Handbook of architectural practice. 8th ed. Washington, 1958.

COWGILL, CLINTON H. AND B. J. SMALL

Architectural practice. 3rd ed. New York, Reinhold Pub. Corp., 1959. 280 p.

EGGLESTON, ALEC

The practising architect. Carlton, Victoria, Melbourne University Press, 1955. 258 p.

TAYLOR, MAURICE E.

Private architectural practice. London, Leonard Hill, Ltd., 1956. 118 p.

66

TURNER, HAMILTON H.

Architectural practice and procedure; a manual for practitioners & students. 5th ed. London, Batsford, 1955. 399 p.

WILLS, ARTHUR J. AND W. N. B. GEORGE

The architect in practice. London, C. Lockwood, 1952. 260 p.

WILLIS, ROYAL BARRY

This business of architecture. N.

Y., Reinhold Pub. Corp., 1941. 210 p.

Contracts

CLOSE, HOWARD A.

The evolution of the RIBA form of contract. London, National Federation of Building Trades Employers, 1952. 21 p.

KEATING, DONALD

RIBA forms of contract. London, Sweet & Maxwell, 1959. 118 p.

LUPTON, GEORGE W.

Government contracts simplified. Washington, 1953. 579 p.

TUTTLE, MORTON CHASE

The choice of a building contract. Boston, Mass., 1931. 46 p.

WERBIN, I. VERNON

Legal phases of construction contracts. N. Y., McGraw-Hill, 1946. 267 p.

Specifications

AMERICAN SOCIETY FOR TESTING MATERIALS

ASTM standards in building codes; specifications, methods of testing, definitions. Philadelphia, 1958. 1041 p.

EDWARDS, H. GRIFFITH

Specifications. N. Y., Van Nostrand, 1953. 311 p.

GOLDSMITH, GOLDWIN

Architects' specifications; how to write them. 2d ed. Washington, American Institute of Architects, 1948. 134 p.

ROTHERMEL, ALLEN V.

Specification index of construction items and materials. Rev. ed. Camp Hill, Pa. 1953. 102 p.

SLEEPER, HAROLD R.

Architectural specifications. N. Y., J. Wiley & Sons, Inc. 1940. 822 p.

SMALL, BEN J.

Building check list. N. Y., Reinhold Pub. Corp., 1954. 147 p.

SMALL, BEN J. & L. AXELBANK

Streamlined specifications standards. N. Y., Reinhold Pub. Corp., 1952-1956. 2 v.

SPECIFICATION, with which is incorporated the Municipal engineers' specification. 60th, 1959. Cheam, Surrey, Architectural Press, 1959.

Law

DUNHAM, CLARENCE W. AND R. D. YOUNG

Contracts, specifications, and the law for engineers. N. Y., McGraw-Hill, 1958. 550 p.

MUELLER, ADDISON

Contract in context; a collection of materials organized around the agreements and disagreements incident to a long-term commercial project. Brooklyn, Foundation Press, 1952. 1095 p.

PARKER, WILLIAM S. AND F. ADAMS

The AIA standard contract forms and the law. Boston, Little, Brown, 1954. 147 p.

SADLER, WALTER C.

Legal aspects of construction. N. Y., McGraw-Hill, 1959. 387 p.

SIMPSON, LAURENCE P. AND E. R. DILLAVOU

Law for engineers and architects. 4th ed. St. Paul, West Pub. Co., 1958. 506 p.

TOMSON, BERNARD

Architectural & engineering law. N. Y., Reinhold, 1951. 424 p.

WERBIN, I. VERNON

Legal cases for contractors, architects, and engineers. N. Y., McGraw-Hill, 1955. 487 p.

WERBIN, I. VERNON

Legal guide for contractors, architects, and engineers. N. Y. McGraw-Hill, 1952. 374 p.

LIET-VEAUX, GEORGES

La profession d'architecte; statut juridique. Paris, Librairies techniques, 1954. 530 p.



BOOK REVIEWS

Creativity—an examination of the creative process. Paul Smith, editor. 210 pp illus. 7" x 10". New York: 1959 Hastings House. \$4.95

From this report of the 3rd Communications Conference of the Art Directors Club of New York we have, with permission, condensed part of one of 14 papers — that of Dr Irving A. Taylor, social psychologist, which appears on page 48 to 53 of this issue of *AIA Journal*. Some of the others, by a wide range of talent, are also of considerable interest to architects and other administrators who deal with and must encourage creative personnel to be creative.

It seems that a great deal of nonsense has been generated about this cultural phenomenon. Attempts to put yardsticks on it have had strange, nonconfirming results. It is suggested that creativity may be beyond the spectrum of measurable intelligence. It was agreed that, if creative persons are to be most useful to organizations, a double track must be laid toward the top—a track paralleling that of administrative hierarchy with equal status and pay. The best way to kill off some of these idea-generators is to load them with administrative detail as a reward for their usefulness. This does not mean that the creative are less ambitious or will be content to swim underwater in a salary scale—just that their scale of values is different from that hitherto fostered by the quaint folk customs of Management and the parasites thereof.

It was also agreed in the conference that, in today's competition, everything grinds to a screech-stop in organizations which do not take care of those individuals who are concerned with the improvement of the substance of the effort. This caretaking calls for creativity in management itself—*rarissima avis*.

The quite articulate and sometimes very amusing authorities participating in this conference represented business, industry, educa-

tion, the sciences, engineering and some of the arts. All had somewhat differing approaches and definitions. One generalized concept was that creativity was the ability to relate previously unrelated things.

This would seem a most tangible part of an architect's daily work. The largest group of problems in the world may have no one right answer. To one of these speakers those who work on this sort of problem are in the creative group.

Real haymakers were thrown at the team and brainstorming techniques. "What comes out of a team . . . is the most daring idea that the least daring man can accept." ". . . each creative act is a non-conforming act . . ."

The individual with considerable tolerance for ambiguity at the outset of a problem study will probably avoid premature categories and come up with the new and better combinations we call creative solutions. In Dr Taylor's lively phrase, the noncreative has "hardening of the categories." He immediately seeks names for everything.

Furthermore, still another paper states that "inspiration comes only to the prepared mind." So much for precious "intuition." Nothing hereditary about it.

The book is well-produced, often sprightly as well as thoughtful, and marred by only a few errors: Some indecision about the word "parameters" (spelled several ways), and an addition of 10 years to Yehudi Menuhin's age at his debut. He was seven, we believe, not seventeen.

ERIC PAWLEY, AIA

Anatomy of a Metropolis: The Changing Distribution of People and Jobs within the New York Metropolitan Region. Edgar M. Hoover and Raymond Vernon. 345 pp. 5½" x 8¼". Cambridge: 1959: Harvard University Press. \$6.00

Made in New York: Case Studies in Metropolitan Manufacturing. Max Hall, Roy B. Helfgott, W.

Eric Gustafson and James M. Hund. 388 pp. 5½" x 8¼". Cambridge: 1959: Harvard University Press. \$6.75

The Newcomers: Negroes and Puerto Ricans in a Changing Metropolis. Oscar Handlin. 171 pp. 5½" x 8¼". Cambridge: 1959: Harvard University Press. \$4.00

Wages in the Metropolis: Their Influence on the Location of Industries in the New York Region. 211 pp. 5½" x 8¼". Cambridge: 1960: Harvard University Press. \$4.75

DONALD L. FOLEY, author of the following book reviews, is Associate Professor of City Planning and Architecture, University of California, Berkeley, California. The reviews were written in England, where he is on sabbatical leave.

The four books under review provide the first reports of a major study of the New York Metropolitan Region. (Five more books in the series are yet to follow.) These volumes do not provide a plan for Greater New York. But this does not relegate them to the realm of the unimportant. Quite to the contrary, this series is of distinct importance, and for several reasons. First, it is an organized attempt to provide a greater understanding of how the internal spatial patterning of the world's number one metropolis is changing, a phenomenon so complex as to defy ready comprehension. Second, it challenges a group of highly capable social scientists, in this case mainly but not exclusively economists, to engage in "best judgment" projective thinking as to the direction in which New York is heading. Third, it highlights the importance and the amazing interconnectedness of the economy of a metropolis, but in readable, qualitative terms rather than merely cold, monetary statistics. This series

may well serve as a prototype for a kind of analysis applicable to other metropolitan or urban communities.

To undertake this very considerable research study, a team of scholars was assembled by Harvard University's Graduate School of Public Administration at the request of the New York Regional Plan Association (the civic, non-governmental organization that 35 years ago commissioned the New York regional plan). The Ford Foundation and the Rockefeller Brothers Fund provided the financing. The team, under Raymond Vernon's direction, sought mainly to analyze the momentum of current developments as these affected the spatial distribution of people, jobs and activities within the 6,914 square-mile, 22-county area designated as the Region. This Region contains a present population of about 16 million.

A thorough study of past trends serves as a backdrop for projections of things most likely to come during the next 25 years. To facilitate this projective thinking, certain assumptions as to national economic trends have been necessary and most present governmental policies are assumed to remain in effect. On the basis of the judgments as to future trends reported in these volumes, it will then—hopefully—be a next step for political leaders and responsible public officials to react to this shape-of-things-to-come by initiating and/or revising plans for the region and developing other forms of public policy. These leaders will want to take the best advantage of those trends that they approve of and want to encourage, and to head off or counteract those trends, such as the spread of blight, that they judge to be contrary to the public interest.

The architect and the city planner may immediately react that this is a survey without a plan, that the team should have included physical environmental designers, and that years are being lost by such preliminary study! It must be granted, of course, that this study is but a first step. Too, the present study runs the distinct risk of slipping into a look at a metropolitan economy without really recognizing it as a *political economy* in which great importance

and potential leverage may attach to public policy and administration.

And yet, in balance, the present study, in this reviewer's opinion, deserves a vigorous defense. For short of a study like this, how is the potential metropolitan planner (or designer, if you will) to gain the intimate and confident knowledge of the activity to be accommodated that in the more customary client-architect relation will be contributed in large measure by the client? This team of researchers, on behalf of the public, is engaged in the same kind of self-examination that in the case of individual firms or organizations would be undertaken by a client. This can, in turn, serve those subsequently charged with planning.

The first of the books, "Anatomy of a Metropolis," deals particularly with the shifting internal spatial organization of the region. It offers tentative and essentially qualitative projections as to the further shifts we may expect to see during future years. A final and more quantitative projection is apparently reserved for the final volume, "Metropolis 1985."

This reviewer found the second volume, "Made in New York," singularly fascinating. It comprises three separate but parallel accounts—of the garment industry, the printing and publishing industry, and the manufacture of electronics. These are highly lucid and very informative. And they analyze thoroughly the forces that work to make the metropolitan center locationally attractive and the forces that serve to encourage portions of these industries to relocate away from the center or out of the metropolitan region altogether. One is struck by the degree of change characterizing these industries, as their respective firms adapt to ever-changing conditions.

Oscar Handlin's contribution, "The Newcomers," is essentially an historical story of Negroes and Puerto Ricans as recent migrants to New York. Handlin, as one might expect, provides a first-class account. He compares recent migrations and current problems with earlier great migrations—Involving the Irish, Germans, Italians and Jews. He is generally optimistic about the probabilities of successful future adjustment by Negroes and Puerto Ricans rather than

quantitative estimates as to the numbers and spatial distribution of these residents.

"Wages in the Metropolis," by Segal, while clearly a most competent volume, may have less of an immediate appeal to the architect and to the lay reader. In general, Segal concludes that New York, while remaining a relatively high wage area, will continue to offer other kinds of offsetting advantages.

German Art of the Twentieth Century Haftmann, Hentzen and Liebermann. 244 pp illus. 8 1/2" x 9 1/2". New York: 1957: Museum of Modern Art. Simon and Schuster. \$9.50

With its now traditional excellence, the Museum of Modern Art has produced in this compact, slick exhibition catalog¹ an illustrated survey of German painting, sculpture and printmaking of the first half of the twentieth century. The three historical and descriptive essays—two by German authorities—give information and explore some of the esthetic bases and relationships of this period of important transitions in art which affect our thinking today.

Die Brücke (The Bridge), *Der Blaue Reiter* (The Blue Rider), *Die Neue Sachlichkeit* (The New Realism)—these are the names and rallying slogans of several of the successive nuclei of discontent with then current traditions. Each developed around one or several strong individuals, banding together for their mutual vocation and mission, the sharing of expenses or even because of a common market thru a sympathetic art dealer.

If we concerned ourselves unduly with personalities in each of these periods, we might be reminded of Jean Cocteau's mock ferocity:

"... A master is fly-paper. More and more flies stick around and he is soon so covered you no longer can distinguish him. It's better to be a fly-swatter!"²

A retrospective selection, however, such as this is for the most part, gives us sufficient distance from the crowd to pick out the tall men. This exhibition and this catalog do just this.

¹ Exhibitions in New York (1957) and in St Louis (1958) catalog printed in Berlin

² *Le Secret Professionnel* (1922)

Of the 180 works exhibited, many are illustrated here, including a generous 50 in good color. Comparison of the one Schwitters in color with the others demonstrates how inadequate black-and-white is to illustrate the work of some painters. A carping essay could be written on the disastrous effect of small-scale black-and-white (or color) reproductions on the understanding of art and the resulting atrophy of our visual experience. We tend to become visually glib in two dimensions only, much as the young poseur mouths several scraps of book-learned connoisseurship to impress his neighbors after tasting wine.

Among German sculptors, it is significant and helpful to learn that the brooding Barlach and the graceful Lehmbruck respectively were dramatic and lyric poets of some stature. This is more than anecdotal. Georg Kolbe, an approximate contemporary, is considered not quite of the same quality. In his rhythmic, representational figures he is master of ". . . a moment of time arrested" rather than creator of a timeless "animation of space." German prints are forceful essays in all graphic media. An insight is provided by the comment that the use of photo-engraving for mass reproduction reawakened artistic interest in printmaking as creative art expression—now liberated from utilitarian bondage to such copy-work.

There are a number of other noteworthy statements in these essays—on Expressionism: ". . . the center of gravity no longer lay in the things themselves, but in the sensations they produced, for which a new language had to be found . . ." Some of this abandonment of natural appearances derives from the intellectual release and stimulus felt by these artists when they learned of the new scientific analysis of matter and universe. The tendency of some was to take a mystical view of the atom and electron. Psychoanalysis added its probing to portraiture. Abstraction made the "expressive inner world of man immediately visible without having to resort metaphorically to the images of the outer world . . ."

In reading such essays, however, we begin to face again the whole question of multiplying words about art as if it were a spectator-

sport in which we can participate only thru the mediumship of a radio commentator, or a rite for which we need a priesthood. Art, no more than poetry, is a gentle laxative for vague emotions. The magic of great art defies complete communication in language—it is non-verbal, in another level or mode of experience. Let's go have it. We should discover for ourselves the quality of pattern and space this painter, sculptor or printmaker has learned to create and animate. This will as well help us to build more awareness of architectural space.

ERIC PAWLEY, AIA

Methods of Reducing the Cost of Public Housing. School of Architecture, Pratt Institute, 139 pp. 9" x 13". Plastics Merchandising Department, Dow Chemical Company, Midland, Michigan, 1960. Free

The School of Architecture of Pratt Institute in its studies on "Methods of Reducing the Cost of Public Housing," shows how worthwhile research may be undertaken and completed by architects. This project was sponsored by the New York State Division of Housing and publication was made possible by a grant from the Dow Chemical Company. Much as an architect accepts assistance from many specialists when he designs a building, so the architects and graduate students who conducted this research accepted help from engineers and others experienced in low rent housing design and construction.

Three different plan types were compared:

tower scheme
open corridor scheme
interior corridor scheme

For all plan types, regular column spacing is adhered to, no basements are included, and a full distribution of apartment sizes is provided in each building.

In the tower scheme, the ground level space is devoted to lobby, elevators, stairs, storage, utilities, and sitting and play area. Most of the apartments have cross ventilation. Each of the five different floor plans required to provide the needed variety in apartment sizes has plumbing in the same locations. The open corridor scheme is thought to be the lowest in con-

struction cost and the interior corridor scheme presented is less costly than most buildings of this type. Many suggestions for economies are suggested by a study of these plans.

The investigation of economical structure includes five types:

two-column cantilever system
lift-slab construction
box-frame construction
light steel framing
non-fireproof construction

As compared to the usual fire-resisting structural design, it appears that the use of light steel framing with regular column spacing will save 2% or 3% of the total construction cost and that the use of lift-slab construction will save 4% to 6% per square foot of floor slab in place.

Forty exterior walls were studied and twelve of these were selected for special analysis. Near-term recommendations emphasize the long range economy of insulated walls, and attention is called to possible future economy resulting from the use of precast concrete panels and prefabricated metal panels.

Interior partitions were compared for suitability for use:

within apartments
between public halls and apartments
between elevators, stairs and halls
between adjacent apartments

The lowest cost partition is exposed concrete block. Another material recommended for economy is gypsum board.

For floor finishes, vinyl-asbestos tile is recommended for most areas and vinyl tile in public spaces. For ceilings, it appears that grinding exposed concrete, a thin coat of plaster, and application of a stipple texture paint are equal in cost, and that the use of taped plywood forms and rubber or plastic liners cost much more.

In considering alternative materials, differences in cost should be considered with the amount of material to be used, and comparative maintenance costs should not be overlooked. For direct comparison it is helpful to reduce annual costs of each material to dollars per square foot of floor.

The booklet is skillfully illustrated and handsomely printed.

CLINTON H. COWGILL, FAIA

SCENE: The private office of Cox and Box, Architects.

TIME: The present; about four-thirty on a rainy afternoon in the latter part of May.

BOX: This lousy weather is getting me down. How about laying aside those specifications and finish telling me about the AIA convention. You've given me the highlights and your broad impressions (some were pretty broad). Now give me a few personal observations. After all, you spent nearly five hundred bucks of the firm's money out there, so I've got a right to a full accounting.

COX: OK, a pleasure, I'm sure. You saw my colored slides of San Francisco when you were out at the house the other night, but the wives were doing so much talking I didn't get much of my commentary across. There are just a couple of points I want to make, and one is that now I've seen a city with *true* glamour. Not a synthetic, neon glamour. A genuine, built-in glamour—not even derived from architecture, trees and boulevards. It seems to spring from the site—the hills, the blue sky, the sparkling water of the bay closing the vista at the end of every street, the bridges, and, in distant views, the whiteness and cleanliness of the city.

BOX: Gosh, I asked for this. I forgot how romantic you are. So the city is like a beautiful nature-girl, upspoiled by coiffeur or spike heel.

COX: Yes and no, for there were plenty of coiffeurs and spike heels, too—although I never could understand how the women negotiate those hilly sidewalks. But I've never seen such a cityfull of well-dressed men and women. No men in Hawaiian sport shirts—at least, not outside of Chinatown, and no women in slacks and sandals. Ties and jackets, if you please, and women in trim suits, heels and stoles. Of course the climate has something to do with that; but also, it's the tone of the place.

Another thing that struck me about San Francisco is that it gives you the impression of still being a city of frame buildings. If any

city in the country has learned a lesson from fire, San Francisco has—let's see, wasn't it April 18, 1906? The first day of the convention was the anniversary of the earthquake and fire. Yet everywhere within the congested area of the city, within what in some cities is called the "fire limits," there are thousands of frame houses and apartment houses. And not just old ones, but brand new ones, under construction. Furthermore, they're not detached houses, but row houses, jammed in cheek to jowl, propped up on their steep slopes on wooden posts.

BOX: Well, I suppose they're relying on a terribly efficient fire department. But I agree with you, in a windy city like that it would worry me.

COX: Much of the convention talk centered on the city and whether or not it is a good place to live. But I felt that the speakers failed to bring out the point they were all talking about, and that is that there are really two cities—or rather, every city is two cities. One is the city of cultural opportunities and the center of intellectual life, and the other is the city of dreary and dirty monotony and confusion. Those who live in the second city seldom see the first city, although many aspire to it. I must say, however, that this is much less true today than it used to be.

In fact, Box, I'll state that there is no such thing as a beautiful city—although there are many cities which are beautiful in part, the planned part. I've seen Paris, Nancy, Berlin, London, Bath, Rome, Venice, New York, Washington and now San Francisco. I've not seen Leningrad nor Rio de Janeiro. They are all two cities. The visitor admires the beautiful city; ignores the ugly city—in fact, he isn't even shown it. But the worst of it is that the dwellers in the beautiful city ignore the ugly city too.

Oh yes, I know what is going on today in the way of slum clearance, urban renewal, neighborhood rehabilitation and all that. It's taken fifty years for our social conscience

to arouse us to that point—accelerated by the stench blowing up-town from the slums. It's all a well-intentioned beginning, but it's still only a beginning. And the trouble with many of the clearance and renewal projects is that they are actually just extending the limits of the beautiful city, without solving the problem of the dwellers in the ugly city they have displaced. Their own solution is simply more congestion, more confusion. The Lincoln Center for the Performing Arts is a wonderful thing for the cultural life of New York City, but what good is it doing the thousands of lowest-income families it has displaced? Only one in a thousand of them will ever be able to afford standing room at the opera—or care about it.

BOX: All right now, my little parlor pink, get off your soap box and remember who you're talking to! Have you got anything else to say about the convention before I drag you off to Shorty's for that snorter you so obviously need?

COX: Sorry, bud. Yes, one more item: Two poets spoke to the convention. One was Dr Oppenheimer, who delivered his address without notes, speaking in a low voice that was deeply charged with feeling and emotion. And the other was Louis Kahn, who also spoke without notes, rambling, inspiring, sometimes off the beam, but always with deep fervor and sincerity. When he stopped, somewhat abruptly, he walked uncertainly to his seat, unsure of his reception, although the audience was applauding loudly. He turned a questioning look at Johansen, who sat next to him. Johansen smiled and nodded his encouragement to him, which brought forth a new and fervent storm of applause. Lou's face filled with emotion and, not knowing what to do, he reached over like a schoolboy and gave Johansen's knee a shove.

BOX: Very touching, very touching—and I mean it. Now we both need a drink.

EXEUNT TALKING . . . CURTAIN

New Aspects of HANDLING GRANITE

*This study by E. C. Clippert
and J. Seiberlich, members of the
Engineering Experiment Station of
the University of New Hampshire,
gives some practical points on
handling granite veneer, a form
that has become more and more
popular in recent years. The report
was made available to us by
Eric T. Huddleston, FAIA*

► Application of granite as a building material has changed during the past 20 years. Architects, contractors and builders have shifted from using large granite building blocks to a veneer type with rubbed or highly polished surfaces.

Granite veneers are produced by sawing and polishing to meet dimension and finish requirements of designer or architect. Thickness of these plates varies from 2" to 6" or more. This is one reason for its excellent adaptability to modern steel and concrete construction. This type of granite product permits easy setting in place and is thus more economical to use than many other materials.

New Techniques Needed

Part of this change in application of granite building material is the necessary development of new handling techniques. New techniques are needed from the quarry to the final placement on the building.

Granite veneer plates are provided with dowel holes so that they can be fastened to the building and to each other by means of dowels in a variety of metals, shapes and sizes. Joints between plates are closed with special mortar compositions, recommended by granite producer organizations.

This paper deals with circumstances which may diminish the beauty of the stone. Once granite has left the expert care of the producer, inexperienced handling may breed mishaps and disappointments. Mishandling is by no means more frequent or troublesome with granite veneers than with other similar building elements. Granite's nature permits avoidance of and specific remedy for most difficulties.

Many temporary blemishes occur because of ignorance of properties of a building material. In the case of granite, misunderstanding is often

based on the belief that granite is so enduring and strong that it will resist any influence of weather as well as physical or chemical action.

Modern granite veneer plates require modern application and techniques. Veneering alters hardness or strength very little.

However, when granite has been polished to a mirror-like finish, the surface may react, as do other polished surfaces. Previously unnoticeable blemishes may be evident. Natural and pleasing variations in color of unpolished granite may become undesirable when seen on finished surfaces. This phenomenon is by no means found exclusively in granite!

Stains

Granite veneer and other natural building materials often are set in place at street level. Generally some tar or asphalt material is used for filling in the expansion joint between the stone and the concrete sidewalk. If these fillers contain watersoluble or emulsifiable oil, they may seep into veneers and cause discoloration. It has been further observed that granite veneer has been placed on structural walls which are wet from concrete operations. As alkaline water from the concrete seeps into the veneer it can come in contact with steel. This moisture, in case of ferrous metals, may cause irregular rust spots on the granite.

Variously colored stains may be produced by copper, brass, bronze etc. Alkaline water from lime or concrete mortar may produce greenish-blue stains.

Concentration of impurities and design, origin and application of the stone are factors controlling visibility of blemishes.

In order to prevent staining action the builder generally specifies dowelling materials resistant to alkalies. Dowels should be cleaned before insertion.

Spilling of window cleaner over aluminum window frames and thence over granite is a frequent source of discoloration. Other blemishes may be caused by absorption of oil and grease. These substances are always present at construction sites.

Treatments

With continuous development of new materials for construction, new problems of blemishes and discoloration may be in store for granite and other veneers. These damages and the cost of remedying them are almost entirely avoidable if properties and handling recommendations of the products are known.

Before beginning any treatment, the cause of

the discoloration should be established. This may be done by chemical methods and studying the type of construction near or behind the spot where blemish becomes noticeable. It is important to learn if such a color-change happens only once or recurs.

Ferrous stains can be removed relatively easily with 10% hydrochloric acid. The time element is important in cleaning and spot removing. Any mineral compound will absorb the staining material to various depths. Time is required for the stain-removing agent to reach the discoloration and react with it.

Capillary forces in these conglomerates are small. Time is needed for transporting any solution into the stone. The spot-removing agent has to be placed on the discolored area for hours to assure continuous flow action. This is generally done by so-called "poultices" made of special material unaffected by the cleaning compound. Suction cups may be used to hold the poultices in place.

The latter should be changed often. Great care should be taken to use only cleaning agents which will not affect the highly polished surface. Thoroughly wash out all chemicals after removing the blemish.

Washing time can be judged by cleaning time. Test runs should be made for all agents.

External dirt should be removed before cleaning. The cleaned stone should be dried naturally; dust should be avoided. After the cleaned spot is air-dry, it should be compared with surrounding stones. Spot should be checked for recurrent discoloration.

Oil and grease spots should not be removed by heating, since carbon particles will be formed by the oil inside the stone. These particles are difficult to remove but may sometimes be dissolved by alternately treating the area with hydrochloric acid and 33% hydrogen peroxide. Sometimes a hypochlorite solution such as Clorox is best for removing carbon particles. Materials containing lye or fluorides should be avoided because they affect the polish of the surface. Care should be taken not to get hydrogen peroxide on the mortar joints as it will dissolve mortar and stain granite below it.

Coatings, at slightly added cost, may be placed on back or front edges of stone veneer. When specifying stone, one has to make allowances for variations and design around them.

Finally, when using chemicals on buildings, the work should be done with full regard for safety of persons and property. ▶

Facilities for the Aging & Infirm

By Clinton H. Cowgill, FAIA, Head of the Department of Office Practice, The American Institute of Architects

PART II (Part I appeared in May 1960)

Facilities for Handicapped Adults

Since the term handicapped is relative and could include almost everyone, it must be used here in the restricted sense of the crippled and chronically ill.

Institutions for the blind, feeble-minded, alcoholic and tubercular are seldom part of a community undertaking — and general, mental and chronic disease hospitals are outside the scope of this discussion. About 71% of those seeking long-term care in institutions are 65 years old or older, about 4% are children, and the remaining 25% are from 25 to 64. Nearly a third are bedridden, and less than 10% are "able to be up and about without close supervision and/or physical assistance".¹⁸

The principal facilities for handicapped adults are known as:

homes for the aged
nursing homes
chronic disease hospitals
rehabilitation centers

Most of these will admit children. Homes for the aged may admit persons who are neither crippled nor chronically ill, but in time some of these are apt to be in need of long-term care. Institutions known as nursing homes are peopled largely by oldsters—average age is 80, 1/2 are over 75, 2/3 are women, less than 1/2 can walk alone, and 1/3 are incontinent.¹⁹

Facilities for Disabled Children

While, as indicated above, most facilities for handicapped adults are also available to children, there are in addition some special facilities

for children. In general, these are more adequate than those for adults.

The school for crippled children may be a special room in which all grades are taught, or a complete elementary school with bus service covering a wide area. Among features considered necessary are:

- grade entrance or ramp
- special toilet rooms nearby
- doors which may be operated from a wheel chair
- hinged or movable blackboard for use from a wheelchair

Special facilities for children should be colorful and juvenile in character. Units should be as small as practicable and scale of furniture, plumbing fixtures, rooms and building should be suitable.

Nursing Homes and Homes for the Aged

Since nursing homes have a bad name due to the low standards which have been maintained in some, it would be desirable to substitute an acceptable name. Some possible substitute names are:

- homes for the aged
- rest homes
- convalescent homes
- boarding homes
- guest houses
- infirmaries
- hospitals for the chronically ill
- homesteads
- dormitories

All of them supposedly provide long-term care but there is a great difference in quality of care provided. About 180,000 of a total of

450,000 beds are in "skilled nursing" homes; 80,000 are in "personal care" homes; and 190,000 are in "sheltered" homes.²⁰

The "skilled nursing" homes offer procedures requiring technical nursing skill (either professional or practical) and including full bed baths, enemas, irrigations, catheterizations, application of dressings or bandages, administration of medications (oral, rectal, hypodermic, intra-muscular).

"Personal care" homes may be "with skilled nursing" or "without skilled nursing." The former provides some of the skilled nursing care described above and the latter does not. The "personal care" provided includes help in walking and getting in and out of bed, assistance in bathing, dressing and feeding; the preparation of special diets, and supervision of medications which can be self-administered.

"Sheltered" (residential services) homes furnish room, board, laundry, help with correspondence and shopping.

The National Conference on Nursing Homes and Homes for the Aged recommend the added classification:

comprehensive services—emphasizing social and group-work services, psychiatry, physical medicine, and occupational therapy.²¹

An effort should be made to place each patient in the type of nursing home his condition warrants.

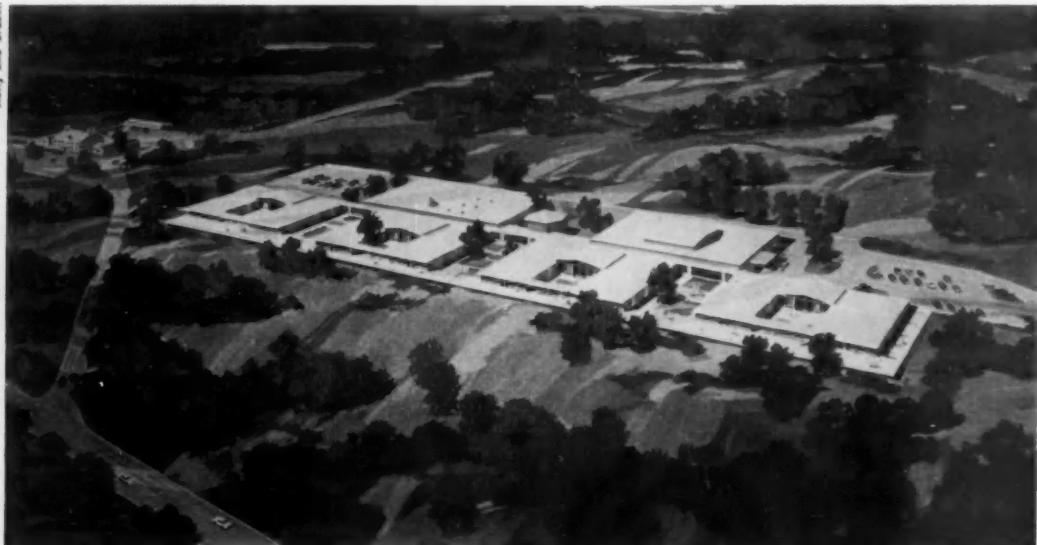
Auspices are described as follows:

Nursing Homes and Related Facilities, by J. Solon and A. M. Baney; Public Health Report No. 69; pp 1121-1132, Dec. 1954

21 Nursing Home Goals, Public Health Reports, V 73, Aug 58, pp 699-713

18 *Planning New Institutional Facilities for Long-term Care*, by Edna Nicholson, Putman, N. Y., 1956, 357 pp
19 *Report of the National Conference on Nursing Homes and Homes for the Aged*,

US Department of Health, Education and Welfare, Public Health Service Publication No. 625, US Government Printing Office, 1958, 85 pp
20 Terms taken from the *Inventory of*



Pleasant Valley Home, Daughters of Israel, West Orange, New Jersey

- proprietary: Private commercial ownership
- public: State or local government
- voluntary: Private, non-profit.

The 91% of all nursing homes which are privately owned have 71% of the beds. The average charge is \$150/mo and approximately 50% of charges are paid from public funds.

Services recommended for joint action of established community agencies include:

- occupational therapy
- recreational therapy
- physical therapy
- social service
- nutritional service
- x-ray service
- laboratory service
- pharmaceutical service
- dental service

To promote physical and emotional health, and to restore all those responsive to treatment and care, it is recommended that:

- techniques and skills be utilized so that patients will not remain bedridden unnecessarily
- ambulant patients should be referred to a rehabilitation center unless needed rehabilitation facilities are at hand

The number of beds per nursing station should be from twenty-five to thirty, and institutions with more than one nursing station should

have one for each twenty-five beds or less. Small institutions are favored because in them it is easier to maintain a homelike atmosphere. Some segregation of patients is desirable, either by specialization by small nursing homes or by the establishment of separate divisions in larger institutions. Possible divisions would be for:

the incontinent	20% to 25%
continent semi-ambulant and bedridden	35% to 45%
others	30% to 45%

A nursing home should provide security, medical supervision and nursing for long terms. More closet space should be provided than in hospitals. Closet doors should have locks. Patients should be given as much freedom as possible, and social contacts should be encouraged. British standards require 15 sf/person for dining. Carefully designed use of color in interior decoration has been suggested for its effect on patient morale. While institutional character should be minimized, control of recreational, therapeutic and service areas, and all entrances should be effective from nurses stations.

Details should be determined from the point of view of a wheelchair occupant—low window sills, handrails, ramps and special furniture. Doors to bedrooms, treatment rooms, recreation rooms, and occu-

pational therapy rooms should be 3'-8" or 3'-10" wide and other doors should be 3'-0" wide. Corridors 8' wide are recommended.

Rooms for two beds are standard but some single rooms are desirable. Curtains separating beds should be hung from sturdy tracks so that they may be used for support in emergencies. Allowances per bed vary from 100 sf to 125 sf. Each room should have a wash basin mounted on brackets, 2'-10" from floor and 6" out from the wall, with angled mirror, hot water with thermostatic control (110°F).

Nursing stations, much like those in hospitals, should include a call system, charting, and medical preparation and storage. Kitchen should be planned for both bedroom and dining room service. Dishwashing should be in a separate room. Separate storage should be provided for soiled and clean linen and there should be facilities for pre-washing bed linen used by incontinent patients.

Bathing facilities recommended are central bathrooms for each sex in each nursing unit containing one bath-tub and one shower. The tub should be accessible from both sides and one end. Showers should be 4' square with an extra shower-head for seated bathers, call bell and curtains. Grab rails of 1 1/4" pipe, 2' long, should be placed vertically in the center of each wall.



Kelly and Gruber

Typical nursing unit, Pleasant Valley Home

Drinking fountains should be 36" above the floor. There should be storage for stretchers and wheelchairs, janitors closets, incinerator, employee's lockers and toilets, and general storage (about 15 sf to 20 sf per bed). An impervious wainscot and acid-resisting floor surface are necessary to maintain sanitary conditions. Heating should be designed for 75°F inside temperature. Provide emergency power.

A single-story building is to be preferred for fire safety as well as the well-being of patients. A sprinkler system is recommended and exits should be ample. If building is fire-resistant, confinement of fire on early detection minimizes risk, but evacuation should be prompt, orderly and rapid. Detection devices, including automatic sprinkler, automatic chemical extinguisher, and heat and smoke alarm deserve consideration. Provisions for disposal and/or storage should be provided for rubbish and inflammable materials, and wiring and mechanical equipment should be installed properly and subject to certified inspection.

Check List of Needs and Standards for Nursing Homes and Homes for the Aged.²³

privacy of person, possessions and mail

individual care
independence

choice of friends
management of money
religion
movement (except as restricted by physician)
visitors
access to telephone

shelter
private room (or apartment for couple or to share with congenial handicapped person)
cheerful decoration
comfortable bed
bedside table
easy chair
drawer space and closet
adequate illumination (including bedlight)

personal possessions
books, pictures, furniture
choice of radio and TV programs
choice of adequate clothing
laundry and cleaning

care
cleanliness of person
clean bed linens
articles for personal hygiene

social participation
encouragement
planning

self-government
discussion
committees

activities
productive leisure
skilled personnel

community participation
interchange of visits
community activities
contact with other oldsters
use of libraries
recreation - parties, picnics

education
music, art, nature, manual training
academic courses
groups - drama, painting, writing, knitting, sewing, weaving, carpentry, flower and toy making

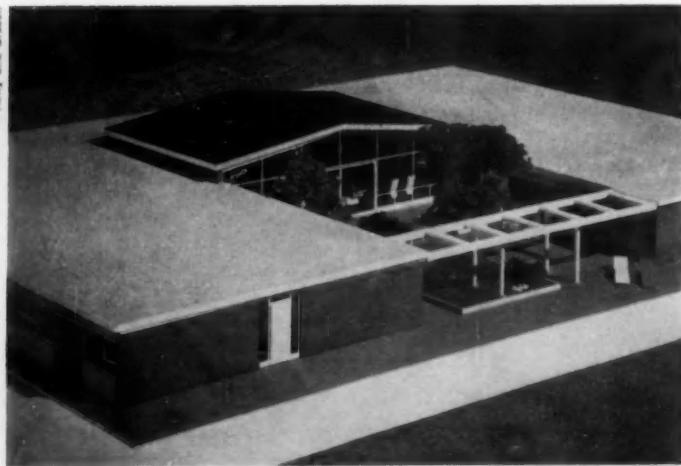
recreation facilities
dominoes, checkers, chess, cards
croquet, shuffleboard, horse-shoes
gardening, pets
movies, concerts, theatricals

work
for benefit of institution (no exploitation)
payment and/or recognition
outside employment
group projects
for church, Red Cross, Salvation Army, Camp Fire Girls, Child Care Agency, etc

religious services
freedom of choice or rejection
chapel
congregation

eligibility requirements
minimum age 65 or 70
in community

23 Based upon *Standards of Care for Older People in Institutions* published by the National Committee on the Aging of the National Social Welfare Assembly 1790 Broadway, New York 19, NY, 1953



Typical nursing unit, model of exterior, Pleasant Valley Home

need for care
ability of institution
blind and deaf
chronic illness
mental illness (mild)
no alcoholics, drug addicts, epileptics, or those with contagious diseases

financial arrangements
pay-as-you-go preferred applicants' resources relatives' help old age and survivor's insurance old age assistance waiting lists (renewable annually)
emergencies by social workers referral to other agencies departure and refunds

social service
case work cooperation with local agencies

financial aid
pocket money payment for work

pastoral counselling

extension services

food and food service

health care

arrangements with physician and hospital
infirmary
nursing
laboratory
rehabilitation, physiotherapy, occupational therapy

housekeeping and engineering

physical plant
building cover $\frac{3}{4}$ ground area (max)
congregate plan
bedrooms in wings
common service and administration
cottage plan
central building with kitchen, dining room, infirmary, chapel and recreational facilities
apartment plan
size 20 to 200 residents
living rooms
sitting rooms
dining rooms, 15 sf/person
libraries
recreation rooms
(sound-proof)
40 sf/bed
auditoriums and chapels
bedrooms
window area $\frac{1}{4}$ of floor area (min)
100 sf, 1 person; 160 sf, 2 persons
buzzers near beds
bathrooms (private or semi-private)
tile floor and walls
WC 6 persons—WB 8 persons
—bath 10 persons
night light and emergency signal
infirmary
ground floor
4-bed rooms
bathroom, utility room, toilet room
work room
examination, diagnosis and treatment rooms, for large institutions
out-patient rooms

kitchens, etc

administrative offices
lobby, public toilets, public telephone

housekeeping department
15 sf/bed

laundry

Until such time as a community is able to provide an adequate number of beds in nursing homes with acceptable standards, it may be necessary to utilize foster homes and boarding homes. Where an aged or infirm person is taken into an unrelated family and all involved are congenial, the foster home may be a very good arrangement. Boarding homes are not usually under control of medical doctors. They may simply provide room and meals for a small group of old people, or various personal services may be added. The residents may be given more freedom than they would receive in large nursing homes.

The types and number of nursing homes or homes for the aged to be built would be determined from a community survey, described later. The number of patients or residents of each type should be estimated. Number of floors would be determined by the total floor area required and the size of the site.

Nursing Home Management

For a typical organization chart given in *Nursing Home Management* by Ralph C. Williams, BS, MD, director, Division of Hospital Services, Georgia Department of Public Health, (F W Dodge Corp, NY 1959), see Figure 9.

The nursing function is normally headed by a supervisor and a general staff nurse, and there is a head nurse for each nursing unit. In each unit there is:

- 1 practical nurse to each 10 patients
- 1 nurse's aid to each 10 patients
- 1 orderly to each 15 patients
- 1 maid to each 15 patients

For a nursing unit with critically ill patients, these figures should be tripled.

Nursing homes and homes for the aged should not look like institutions. If they must be large, the nursing units could be put in separate wings. An informal design

with skillful landscaping and colorful interiors may produce a home-like effect. Partitions between rooms should be sound-resisting. Location in a clean, quiet suburban area convenient to transportation facilities is recommended, but if possible some nursing homes should be near neighborhoods from which the patients will come.

Rehabilitation Centers

According to the National Council on Rehabilitation: "Rehabilitation is the restoration of the handicapped to the fullest physical, mental, social, vocational, and economic usefulness of which they are capable." Services may include:

- medical and surgical diagnosis and treatment
- social case work, possibly with financial assistance to supporting family
- training in use of crutches and other aids, and in the patient's own personal care
- evaluation of patient's potential work capacity
- assistance in job placement

The medical care and social training is frequently given in hospitals and vocational services by state and local rehabilitation departments. Rehabilitation centers may provide part or all of the services.

While these services are primarily for patients who may be restored to normal or near-normal living, many rehabilitation centers also accept the permanently disabled and chronically ill. Very few general hospitals furnish all of these services. In some communities, it is wiser to expand the rehabilitation services of a hospital or nursing home, rather than establish a separate rehabilitation center. Generally, treatment requiring highly specialized personnel and equipment should be given in the hospital, and some other treatments should be given in the patient's home or in nursing homes. The latter should include services of a psychiatrist, physical and occupational therapists, and nursing and medical staff. Included also should be sheltered workshops, physical therapy equipment, recreational equipment (radio, TV, games), and possibly a chapel. If physical therapy and services of a visiting

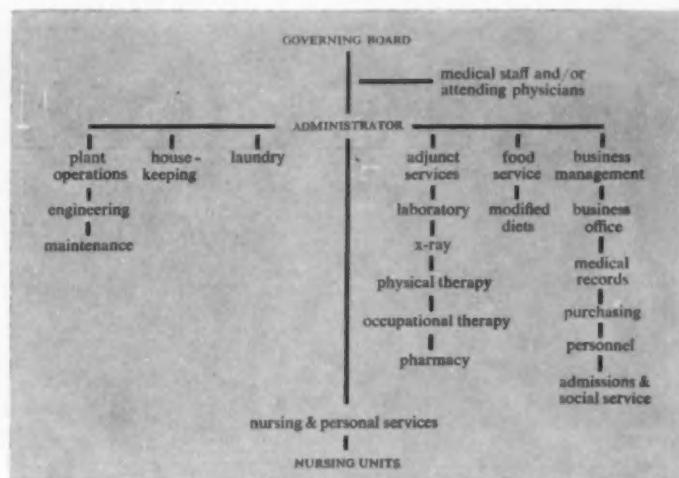


Figure 9

nurse (and possibly a visiting housekeeper) are made available to old people living in their own homes, their admittance to nursing homes or chronic disease hospitals may be postponed or avoided.

The late John W. Cronin, stated²⁴ that there were recently twenty-eight comprehensive rehabilitation centers in the US and that eight times this number is needed.

Buildings for rehabilitation centers are well presented in *Rehabilitation Center Planning, An Architectural Guide* by F. Cuthbert Salmon, AIA, and Christine F. Salmon, AIA, published by the Pennsylvania State University Press. Their excellent publication also offers advice concerning procedures in making:

- preliminary survey
- programming
- planning
- selection of site

Detailed measurements are given for wheelchairs and equipment used by patients. The design of doors, ramps and furniture is illustrated, areas of activity are analyzed, and typical modular rooms are shown. Also, data are given concerning staff-patient ratios.

Organization of Community Facilities

In a survey of the needs of the community for facilities for the aged and infirm, a checklist or summary similar to that which follows might prove to be useful. Col-

umns should be provided for entering the number available, and the number needed currently and at some later date—perhaps ten years hence. The number of available beds should include only those in institutions which meet agreed-upon standards. Total numbers should be given for each item regardless of where in the community the items may be located. For example, rehabilitation facilities may be in a general hospital, in a nursing home, or in a rehabilitation center. There should be general agreement among those gathering the data to guide their judgment in determining the number of beds needed in general, mental, and chronic disease hospitals, nursing homes, homes for the aged, and dormitories (hotels, clubs, self-help housing, etc)

Survey Summary

- hospital beds total
 - general
 - mental
 - chronic
- nursing home beds
 - unrestricted
 - for ambulant
 - for continent
- homes for aged beds
 - unrestricted
 - for ambulant
 - for continent
- dormitory beds for ambulant only
 - self-help housing
 - hotels
 - clubs
 - boarding houses

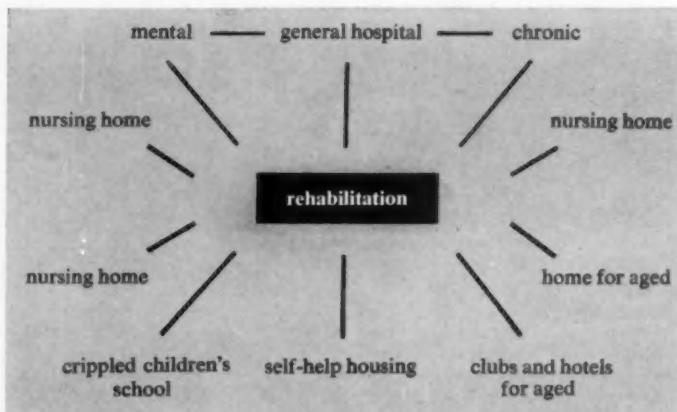


Figure 10

- rehabilitation facilities sf.
occupational therapy
speech and hearing
physical therapy
gymnasium
appliance shop
vocational training
- school for crippled children
no. of pupils
- total beds, nursing homes, etc
- community population
- employed population

Figure 10 indicates, in an oversimplified manner, what might be considered ideal relationships between community facilities for the aged and infirm. Coordinating agency should be the general hospital. If mental and chronic disease hospitals were not under same management or direction as general hospital, they all should work closely together. If rehabilitation facilities of general hospital are adequate and can be made available to all, a separate rehabilitation center may be unnecessary—otherwise management and direction of rehabilitation center should work closely with that of general hospital. A close physical relationship between all of these units is desirable.

Few, if any, nursing homes or homes for the aged are large enough to justify complete rehabilitation and medical facilities. It is highly important, therefore, that these facilities in the rehabilitation center and/or hospitals be made available to patients in nursing homes and homes for the aged. It should also be the responsibility of the general hospital to establish acceptable standards in nursing homes and homes for the aged

without unduly increasing costs to patients. If the school for crippled children were located near the rehabilitation center, it might be unnecessary to duplicate some rehabilitation equipment. Management of the school should be under supervision of the medical profession through the general hospital.

Even though oldsters may live in clubs or hotels, or self-help housing, many of them should make use of rehabilitation resources, and thus be able (perhaps with assistance from visiting nurses and housekeepers) to defer becoming physically dependent.

The community for which facilities for the aged and infirm should be planned may have a population of 50,000 or 200,000. If the natural boundaries contain less than 50,000, some facilities, such as a rehabilitation center might be shared with another nearby small community. If many more than 200,000 people live in the area, consideration might be given to division into two communities for purposes of detailed planning, but overall planning should cover the metropolitan area.

Many communities divide themselves (naturally or otherwise) into smaller units often called neighborhoods. Planning of such units from a standpoint of older people is charmingly discussed by Lewis Mumford.²⁵

He says: "For both companionship and easier nursing care, the aged should not be scattered in single rooms or apartments through the whole community; but neither should they be thrown together in one large barrack labeled by the

architecture, if not by the signboard Old Peoples Home. They should rather be grouped in small units of from six to perhaps a dozen apartments. The old monastic rule, that one needs a dozen members to form a community, has had long enough trial to give one confidence in it as a rough measure; when there are less than a dozen, a single cantankerous individual may have a disruptive effect. When there are too many together, they bring on institutional regulations.

"In a well-designed neighborhood unit, the aged should be able to go to any part of it, including the shopping area, the library, the church, the community center, without crossing a traffic artery; indeed without, if possible, climbing a step.

"What the aged need is activities; not just hobbies, but the normal participation in the activities of a mixed community.

"There usually comes a time in everyone's life sooner or later when he requires specialized nursing and medical care. The skillful organization of such care is the duty of the community as a whole — small nursing homes close at hand for family and neighborly visitors."

* * *

While the architect may not be called upon to survey community needs and facilities, it is important for him to understand relationship of a project to the total situation. Also, if he is to design facilities for the aged and infirm, he must know their limitations and desires, their thoughts and feelings. He must also know methods of treatment and needs of those who perform and direct.

Bibliography

General

The Aged and the Aging in the US—Hearings before the Subcommittee on Problems of the Aged and Aging of the Committee on Labor and Public Welfare, US Senate, 86th Congress, 1st Session.

Creative Activity of Older People by Howard Wheeler in *Annals of the American Academy of Political and Social Science*, Vol. 279, Ja. '52, pp 84-92. Intelligence tests are no measure of creativity and creative faculty is not related to age.

Inventory of Nursing Homes and Related Facilities by J. Salow and

A. M. Baney, *Public Health Report* 69, pp 1121-1132, D 1954.

Mortality, Morbidity, and Retirement by James S. Tyhurst, Lee Salk, and Miriam Kennedy in *American Journal of Public Health and the Nations Health*, Vol. 47, N '57, pp 1434-44. Retirement of industrial workers does not hasten death or lead to deterioration of health.

Physiological Changes in Aging by Anton J. Carlson and Edward J. Stieglitz in *Annals of The American Academy of Political and Social Science*, Vol. 279, Ja. '52, pp 18-31. Aging begins with birth, is rapid in early life but growth and development predominate. It is affected by both environment and heredity. Cells would be immortal in optimum environment. Changes due to aging are listed. Old people require less sleep than younger people but must have it more frequently.

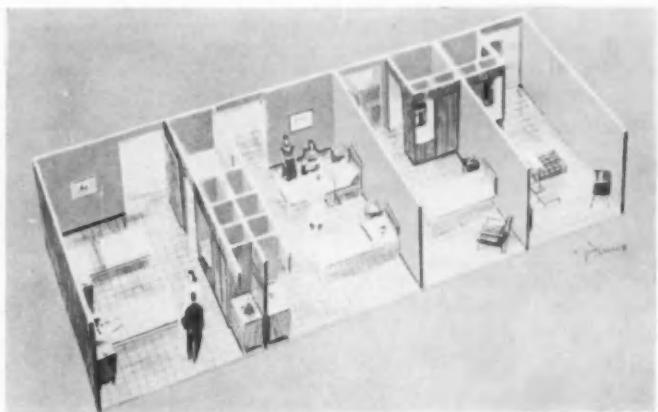
Psychiatric Evaluation of Applicants to a Home for the Aged, by Marc H. Hollender, in *Jewish Social Service Quarterly*, Vol. 29, Mr. '53, pp 325-30.

Trends in Gerontology by Nathan W. Shock, Stanford University Press, Stanford, California, 1951, p 153. Between the years of 1940 and 1948, the population over 65 in California increased twice as fast as average for the country. 96% of oldsters are in their own homes. Almshouses and poor farms are disappearing. There are 100,000 in institutions for the aged.

Nursing Homes

Administration of Homes for the Aged, Council of Jewish Federations and Welfare Funds, NY, 116 pp, 1952. Included are: *The Modern Home for the Aged*, *The Management of the Institution*, *The Medical Program*, *The Social Service Program*.

Equipping the Nursing Home in Modern Hospital, Vol. 86, Mr. '56, pp 79-81. There should be a central bath with one tub and one shower for each six persons in each nursing unit, arranged for use of patients in wheel chairs. The tub should be accessible both from sides and one end. Shower baths should be 4' square with hand rails vertical at center of each wall and curtains. An extra shower head for bathers in the sitting position is desirable.



Typical bedrooms, Pleasant Valley Home

Drinking fountains should be 36" above the floor. There should be storage for stretchers and chairs, linen, also an incinerator, employees' lockers and toilet, storage space should equal 15 to 20 sf/bed.

Housing for the Aging by Wilma Donahue, University of Michigan Press, Ann Arbor, 1954, 280 pp. Old people want and should have privacy with community services. They should be accessible to their families and friends. Provisions should be made for the aged who are sick, unadjustable, have long term illness. Segregation of different types is desirable and nursing homes should be more closely related to a general hospital.

Planning and Equipping the Nursing Home by John W. Cronin in *Modern Hospital*, Vol. 86, Mr. '56, pp 69-79. Leonard W. Mayo says that hospitals must lead in the control and prevention of chronic diseases. He estimates that 2,000,000 adults could be rehabilitated and become employable and that 90% of these could become economically self-sufficient. Nursing homes should provide for oldsters who are not acutely ill or in need of hospital care but who need some nursing and related medical services.

Nursing Home Goals, *Public Health Report*, Vol. 73, Ag. '58, pp 669-713. Recommended services including residential (housing, food, laundry, correspondence, shopping) personal (help in walking, getting in and out of bed, bathing, dressing, feeding, including special diets, supervision of self-administered medication) nursing (technical nursing) and comprehensive (so-

cial and group work, medical rehabilitation, including psychiatric, and occupational advice).

Nursing Homes, Present and Future in Modern Hospital, Vol. 84, My '55, pp 65-88. Edna E. Nicholson says nursing homes should provide security, medical supervision, nursing for long terms. Raymond P. Sloan suggests color for improving morale. Irving Bass suggests working with hospitals. The institutional character of nursing homes should be minimized, as much freedom as possible should be provided but control from nurses' station should be effective, and include supervision of recreational and therapeutic areas, service areas and entrances. Nursing units with twenty-five to thirty beds is advised with forty as a maximum. Units for two beds with curtains between are suggested and an allowance of from 100 sf to 125 sf/bed is suggested.

Round the Clock Nursing or Self-Service by Jane Barton in *Modern Hospital*, Vol. 88, Ju. '57, pp 51-6. Care zones are suggested as follows: special routine, self-service, (including eight hotel type rooms and a lounge with television, reading facilities, snack bar).

Independent Facilities

Community Services for Older People—Chicago Plan, by Elizabeth Breckinridge, Helen Graves Laue, Mary Hollis Little and Helen Manning. Weibold Foundation Welfare Council of Chicago (Community Project for the Aged) 1952, 240 pp. 2% of oldsters are in the cities. The greatest need is for more independent housing and small boarding houses with service and some



Dining room, Pleasant Valley Home

supervision. Cooperative residences, clubs, and foster homes are suggested.

Designing a Retirement Village (Conf on Retirement Villages, Am. Soc. for the Aged, Inc. Feb. 1958, 4 pp mimeo), R. Nims discusses the objectives sought.

The Conference on Retirement Villages for the Aging (Am. Soc. for the Aged, Feb. '58, 9 pp, mimeo). In Moosehaven in Florida, many services are offered and many of the residents are employed for various tasks.

Environmental Needs of the Aging; Symposium; in *Geriatrics*, Vol. 12, Ap. '57, pp 209-51. For independent living, the aged should be an integral part of community, and independent. For group living, row-houses with limited space and some facilities to be used in common are suggested. A day center with occupational shop, shuffle board, sitting room, games, multipurpose room, dining and kitchen, also display and sales space are suggested.

Home Care Programs for Homes for the Aged by Flora Fox in *Jewish Social Service Quarterly*, Vol. 29, Sp. '53, pp 302-9. Included are: Casework, medical care, visiting nurse service, occupational therapy, recreational activities, homemaker service, domestic service, and transfer to "home."

The Life of the Retired in a Trailer Park by G. C. Hoyt in

American Journal of Sociology, Vol. 59, Ja. '54, pp 361-70. The reasons given for oldsters leaving their home community include: early retirement in urban-industrial society, two-generation families are replacing the three-generation family, loss of status of the aged, social security and pensions make it possible to leave. A study of 100 trailers in a park is reported which expanded to 1093 trailers. Activities included: church, bingo, square dances, dances, Bible classes, hobby club, card party, choir practice, shuffle board, movies, horse-shoe pitching, and band. 61% of the men and 52% of the women participated. The values of such an arrangement include: association, freedom, sick care, economy, and living with others with similar spending patterns. Obvious mobility is seldom taken advantage of.

Moosehaven: Congregate Living in a Community of the Retired by Robert W. Kleemeier in *American Journal of Sociology*, Vol. 59, Ja. '54, pp 347-51. The community consists of 350 residents with an average age of over 76 who are mostly dependent men. Included are 7 resident halls with kitchen, dining room, large health center, community building with auditorium. Most are able to work on the place.

The Nature of Retirement by Elon H. Moore, edited by Gordon

F. Streib, NY, 1959. Housing for ambulatory, paying tenants should be near facilities and parks where neither steep grades nor stairs would be encountered. Should be quiet and have ample light, some heat, and should be either on the ground floor or elevator apartments. The English say that 17% of new dwellings should be for aged.

Retirement Housing Offers New Market (Nation's Business, XLIV, My '56, pp 14-17) retirement villages at North Cape May, NJ; Ormond Beach, Fla, and Salhaven at Palm Beach, Fla, described briefly.

Rehabilitation Centers

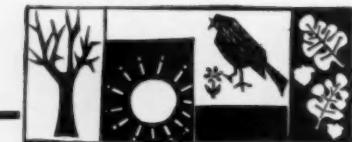
Hospitals and Nursing Homes Organize Services for the Aged, by Louis Allen Abramson in *Modern Hospital*; Vol. 92; pp 75-92, Apr. '59. The rehabilitation addition to Beth Abraham Home, Bronx, NY, is described and illustrated.

A Proposed Activity Center for Older People by Woodrow W. Hunter in *Geriatrics*, Vol. 6, Mr.-Ap. '51, pp 121-8. The community project described includes: Survey of older people's needs, publicity, organization of a planning group, financial support, counselling services, community-wide services, etc.

Rehabilitation Center Planning an Architectural Guide by F. Cuthbert Salmon, AIA, and Christine F. Salmon, AIA, Pennsylvania State University Press, 1959, 154 pp. ▶

New Corporate Members *elected May 25, 1960*

Abend, William Maurice Northern California Chapter	Giffilan, Robert A. C. Philadelphia Chapter	Roberts, Joe Ben North Texas Chapter
Albert, Roy I. Detroit Chapter	Goudie, Clyde Derwood Coast Valley Chapter	Roberts, Percy Earl, Jr. Baton Rouge Chapter
Bacon, Eugene Lilburn Detroit Chapter	Grady, Martin Duane Minneapolis Chapter	Robbins, Jacob East Bay Chapter
Bealle, Thomas Brown, Jr. Alabama Chapter	Hartwigsen, Bruce Westchester Chapter	Rosenthal, Leo Colorado Chapter
Bendixen, Warren E. Brooklyn Chapter	Henry, Charles Lynn El Paso Chapter	Sattelberg, Ronald E. Central New York Chapter
Boerema, Robert Jay Florida South Chapter	Hill, John William Baton Rouge Chapter	Savini, David Owen Georgia Chapter
Bondurant, Edward Justine Alabama Chapter	Homolka, Frank Southern California Chapter	Seward, John Cumings Northern California Chapter
Carry, Walter Thomas Georgia Chapter	Horowitz, Stanley Louis New York Chapter	Sink, Orville DeLoss Southern California Chapter
Cowie, Thomas Wilkins Southern California Chapter	Lee, Robert Harding Connecticut Chapter	Smith, Donald William Detroit Chapter
Dean, Sebren Brooks West Virginia Chapter	Lee, Robert Jun Southern California Chapter	Stover, Charles Coane New Jersey Chapter
Delatte, Martin Joseph New Orleans Chapter	Lyle, John Tillman New Orleans Chapter	Sukthankar, Shanti Singh Philadelphia Chapter
Di Laura, Eugene L., Jr. Detroit Chapter	Miller, John David Kansas City Chapter	TeVault, DeWayne Southeast Texas Chapter
Dobson, Clinton Ross Baton Rouge Chapter	Miller, Robert C. New Jersey Chapter	Trimm, Henry Owen Florida South Chapter
Fisher, Don B. Indiana Chapter	Nagy, James Joseph, Jr. Detroit Chapter	Turner, Dorris Belle El Paso Chapter
Forsberg, Enock E. Minneapolis Chapter	Nicholas, Philip A. Detroit Chapter	Vanlandingham, Marion Lynn Kansas Chapter
Fouts, Robert Warren El Paso Chapter	Norton, Thomas A. New York Chapter	West, Byron Lee Toledo Chapter
Galvin, Thomas Francis New York Chapter	Novaresi, Elmo Jonn East Bay Chapter	Whitlow, Clyde Lorraine Southern California Chapter
Ganstrom, Harry Winston Southern California Chapter	Pastor, Nicholas Steve Detroit Chapter	Widmer, Herbert Edwin Reno Chapter
Gass, Alan Golin Colorado Chapter	Peery, William Robert West Virginia Chapter	Williams, Donald Shand Florida Central Chapter
Gelin, Sven Martin New Jersey Chapter	Pellegrini, Emil William Detroit Chapter	Wilson, Hilda Young Southern Arizona Chapter



CALENDAR

July 23-August 15: AIA-US Travel Agency Tour of Europe (to August 23 if Russia included).

August 20-September 3: Annual Mexican Architecture Seminar Tour in cooperation with Sociedad Arquitectos Mexicanos. (For full information write Gira Arquitectura, T. H. Hewitt, Director, 2413 Driscoll, Houston 19, Texas.)

September 26-30: Board of Directors, AIA, Las Vegas, Nevada.

September 26-late October: South American Tour.

September 27-30: Sixth Annual Convention of The Prestressed Concrete Institute, Statler-Hilton Hotel, New York City.

October 2-13: International Seminar on Industrial Architecture, Kazimierz, Poland.

October 5-7: Thirty-ninth Annual Meeting, The Producers' Council, Inc, Drake Hotel, Chicago, Illinois.

October 6: Sixth Annual Architects' Tour of Japan (See News).

October 8-16: Pan American Congress, Buenos Aires, Argentina.

October 10-11: Construction and Civil Development Committee, US Chamber of Commerce, The Cloister, Sea Island, Georgia.

July 3-7, 1961: Sixth Congress of the International Union of Architects, London. (For full information

write Secretary, Royal Institute of British Architects, 66 Portland Place, London W. 1, England.)

AIA District and Regional Meetings

August 11-13: Michigan Society of Architects Annual Meeting, Grand Hotel, Mackinac Island.

October 1-5: Northwest Regional Conference, Sun Valley, Idaho.

October 2-4: Gulf States Regional Conference, Hot Springs, Arkansas.

October 11: New York Region Annual Convention, White Face Inn, Lake Placid, New York.

October 12-15: Annual Convention, New York State Association of Architects, White Face Inn, Lake Placid, New York.

October 14-16: New England Regional Meeting, Jefferson, N.H.

October 19-23: Annual Convention, California Council, AIA, Yosemite National Park, California.

October 20-22: California Regional Conference, Yosemite, California.

October 26-29: Western Mountain Region Annual Conference, El Conquistador Hotel, Tucson, Arizona.

October 28-31: Western Mountain Regional Conference, Tucson, Arizona.

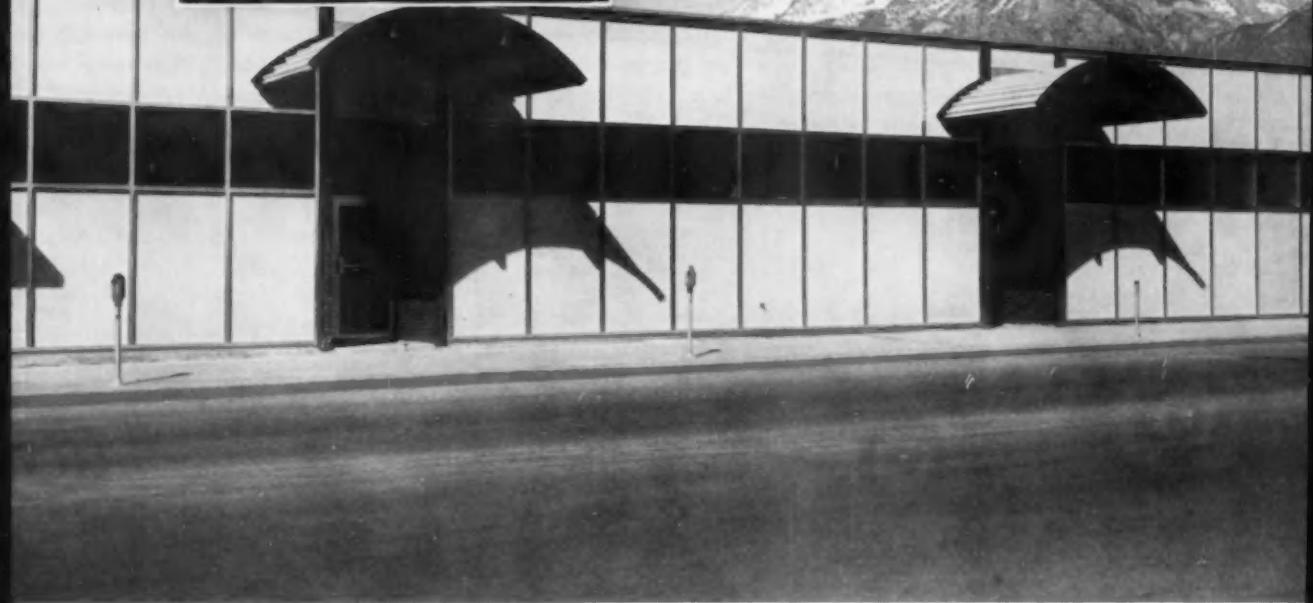
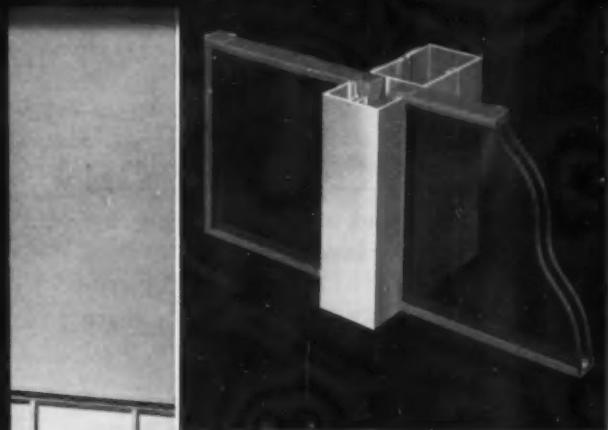
November 2-5: Twenty-first Annual Convention of the Texas Society of Architects, Cortez Hotel, El Paso, Texas.

NECROLOGY

According to notices received at the Octagon between May 7, 1960 and June 6, 1960

ALLEN, HARRIS C., FAIA, San Francisco, Calif.
ANDERSON, STANLEY D., Lake Forest, Ill.

BURKHARD, FRANK, Oceanside, L.I., N.Y.
LACEY, ARTHUR T., Binghamton, N.Y.
MARTIN, ALBERT C., SR., Los Angeles, Calif.
MURPHY, HENRY V., Brooklyn, N.Y.
YEAGER, RALPH O., SR., Terre Haute, Ind.

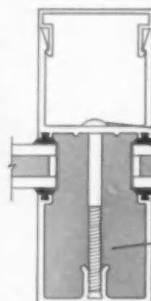


Owner: Nesral-Century Co. ■ Architect: Ashworth Architects ■ General Contractor: R. D. Cloward ■ Glazing Contractor: Jones Paint & Glass Co. / All of Provo, Utah. Cold winters, sweltering summers meet their match in Amarlite 303 HV Trimline with insulated glass.

Architectural jewelry weds beauty and duty

Amarlite Series 303 HV Trimline makes available to the architect an inherently beautiful building material with a world of usefulness. It is a modular, self-supporting system for complete insulated wall construction. It supports insulated glass or panels, provides effective thermal insulation as well as resilient sealing. Beyond that, it will retain its beauty indefinitely without painting, polishing or pampering. Specify Amarlite. You will like the results.

Write for our catalog or see Sweet's File.



POINTS OF PERFECTION

1. Uniform Amarlite finish. Hard, tough anodized surface resists wear, dirt.
2. All fastenings are concealed for flawless beauty.
3. Vinyl glazing strips provide positive, permanent resilient seal.
4. Dead air space and thermal break between front and back members provide continuous insulation.

Please address inquiries to P. O. Box 7188A



American Art Metals Company

Artistry in Aluminum

ENTRANCES / STORE FRONTS / CURTAIN WALLS

GENERAL OFFICES: P. O. BOX 7188, STATION "C", ATLANTA, GA. • NEW YORK, N. Y. • CHICAGO, ILL. • DALLAS, TEXAS • PARAMUS, N. J.

Age Only Deepens

THE BEAUTY of this PROTECTED FLOOR

SUPER ONEX-SEAL® seals out dirt, moisture and traffic wear, gives a lustrous, three-dimensional look to the floor surface. Friction of feet tends to deepen the lustre, an effect similar to that of hand-rubbed hardwood. Enhances the natural colors of terrazzo. Outdoors too, on store entrances, patios, shuffleboard courts or dance floors, Super Onex-Seal holds the beauty of the smooth protected surface.

A SUPER ONEX-SEAL surface is hard, smooth, firm. It is the penetrating type seal recommended by leading terrazzo contractors. Alkaline salts are sealed in so that the problem of dusting is eliminated. "Terrazzo should not be waxed." - Bulletin of Nat'l Terrazzo & Mosaic Assn. Sealed floor needs only minimum maintenance to keep clean and sparkling.



listed for slip resistance.



Write for FREE Hillyard A.I.A. Numbered Files — practical treating guides, one for each type of flooring.

Let the Hillyard "Maintainer®" offer you advice on floor clean-up and initial treatment. He'll also serve as your Job Captain,

"On Your Staff. Not Your Payroll"

WHETHER TERRAZZO, WOOD, CONCRETE, CERAMIC TILE or RESILIENT FLOORS



H I L L Y A R D
Pasciac N. J. ST. JOSEPH, MO. San Jose, Calif.



**You'll Finish Ahead
with**

H I L L Y A R D

Branches and Warehouse Stocks in Principal Cities

DESIGNS OF DISTINCTION IN BRONZE

Architects and building owners agree that the copper alloys provide the much desired change in architectural metals. Here are two more distinguished examples showing the broad variety in texture, form, and warm, rich color available to translate architectural concepts into reality. Modern design, as shown here, does not require special production of intricate shapes. Instead, economical use is made of standard bars, channels, angles and formed sheet metal.

For more outstanding examples and fabricators' detail drawings, write for "Architectural Metals by Anaconda." This 64-page book is the first comprehensive publication on the architectural uses of copper and copper alloys. It gives practical and detailed information on the available metals, their compositions, colors, forms, physical properties, finishes, maintenance and suggested specifications. For your complimentary copy write: The American Brass Company, Waterbury 20, Conn. In Canada: Anaconda American Brass, Ltd., New Toronto, Ontario.

6020



Write today on your
firm's letterhead
requesting your copy of
Architectural Metals
by Anaconda,
Publication B-15.

BRONZE—The Architectural Metal of Distinction

ANACONDA®

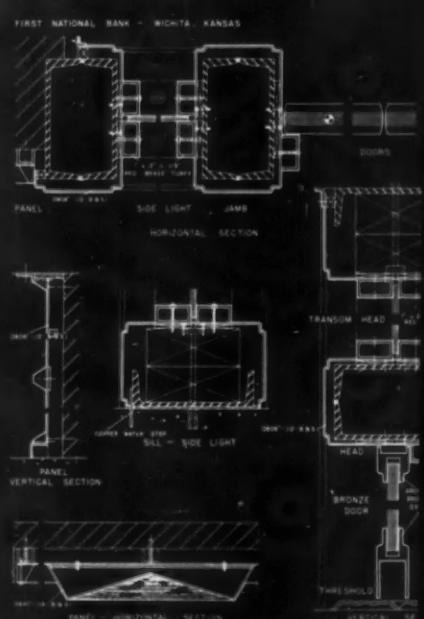
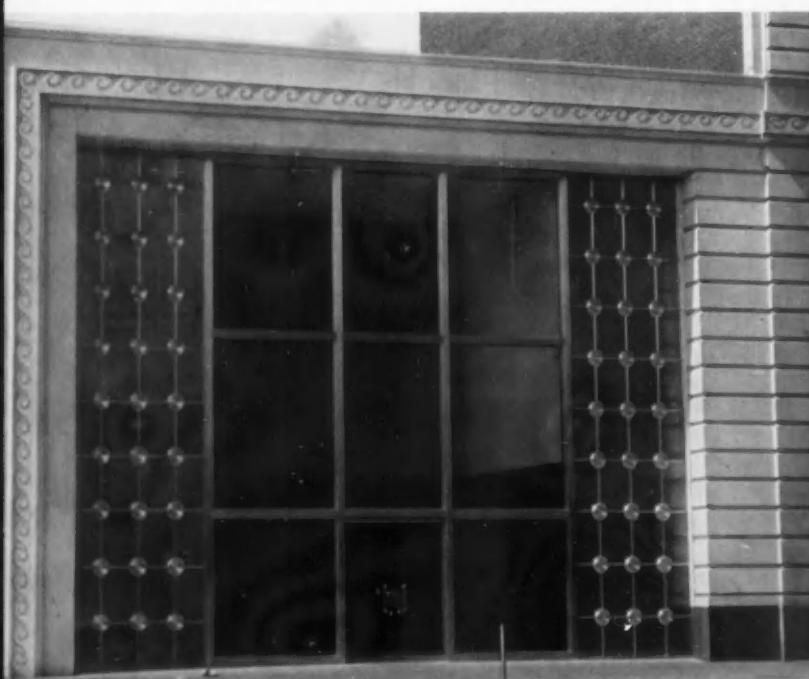
ARCHITECTURAL METALS

Made by The American Brass Company

First National Bank, Wichita, Kansas (below). This facade of bronze and glass illustrates the beautiful effect accomplished by applying a statuary finish to some of the bronze work and leaving other components in the natural, bright finish of the metal. The installation consisted largely of sheet metal, flat, spun, or formed with a press brake. Standard sizes of drawn red brass channels and rectangular tubes were used for the stops in the glass area; and extruded shapes for the door rails, panel dividers, and thresholds. ARCHITECT: Forsblom & Parks, Wichita. FABRICATOR: The Alumiline Corporation, Pawtucket, R. I.



Embassy of Switzerland, Washington, D. C. (above and below). Bronze metals in sheet, rectangular tube, and extrusions were used by the fabricator to execute the architect's designs for spandrels, mullions, fascias, and columns. The grille (below), seemingly of solid bars, is actually fabricated from standard size, rectangular red brass tube. ARCHITECT: William Lescaze, New York. FABRICATOR: A. F. Jorss Iron Works, Arlington, Virginia.



From THE AMERICAN INSTITUTE OF ARCHITECTS
1735 New York Avenue N. W., Washington 6, D. C.

An Accounting System designed for your office . . .

Four years of intensive research by a Committee of the Institute has resulted in the completion of a Cost Accounting System which is adapted to the special needs of architectural offices.

Heart of the System is the Book of Instructions, available with each of the Offers; or sold separately at \$5.00 per copy. In it are all the necessary instructions, along with samples of most of the forms, filled out as examples.

The System can be purchased in three separate Offers. Each contains a year's supply of forms. Full information on the contents of each Offer, and prices of individual forms, may be obtained upon request.

● OFFER NUMBER ONE

*Includes Instructions,
Accounting Forms,
Owner-Contractor Forms,
Binders.*

\$47.00

● OFFER NUMBER TWO

*Includes Instructions,
Accounting Forms,
Owner-Contractor Forms.*

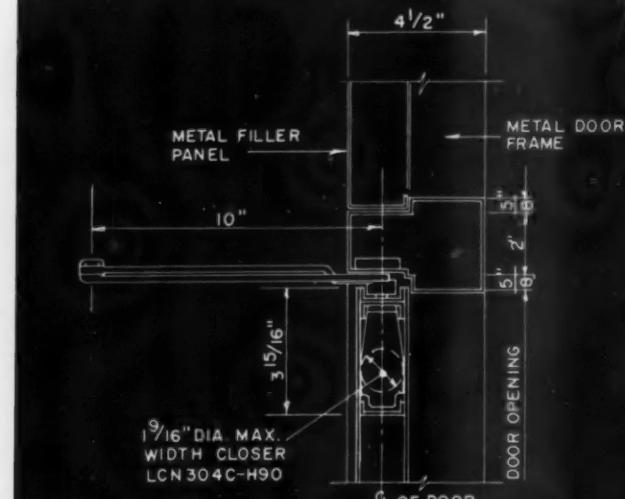
\$31.50

● OFFER NUMBER THREE

*Includes Instructions,
Accounting Forms.*

\$22.50

Direct inquiries to:
The American Institute of Architects
1735 New York Avenue, N. W.,
Washington 6, D. C.



CONSTRUCTION DETAILS

for LCN Closer Concealed-in-Door Shown on Opposite Page

The LCN Series 304 Closer's Main Points:

1. An ideal closer for many interior metal doors
2. Mechanism concealed within door; flat arm not prominent, and provides high closing power
3. Door is hung on regular butts
4. Closer may have regular arm or hold-open type, 90-140° or 140-180°, as desired
5. Hydraulic back-check protects walls, etc., on opening
6. Door and frame easily prepared by metal fabricator. Closer can be installed at factory or at job site.

*Complete Catalog on Request—No Obligation
or See Sweet's 1960, Sec. 18e/La*

LCN CLOSERS, INC., PRINCETON, ILLINOIS

Canada: Lift Lock Hardware Industries, Ltd., Peterborough, Ontario

Modern Door Control by
LCN

Closers Concealed in Door

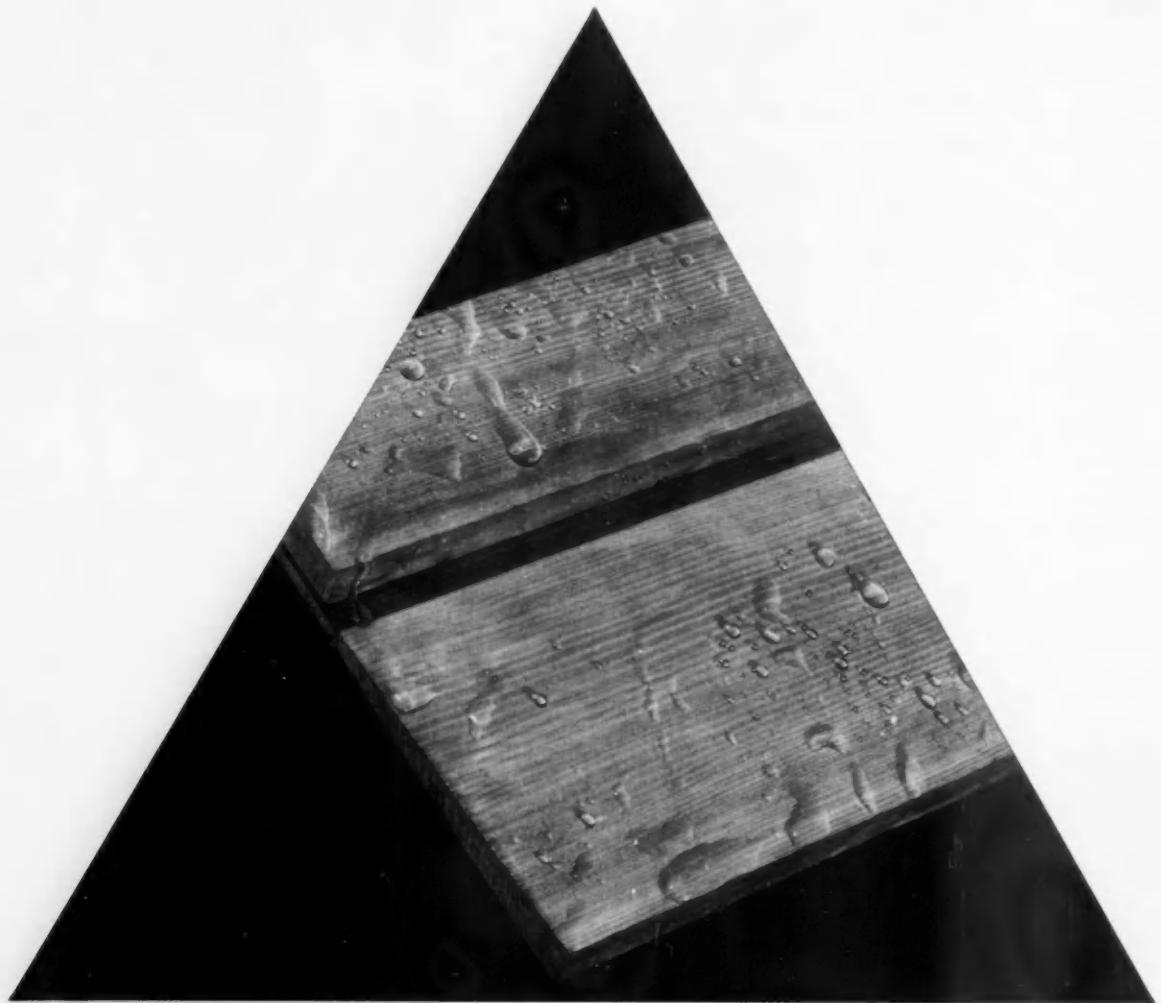
SOCIETY OF ARTS AND CRAFTS BUILDING
DETROIT, MICHIGAN

Minoru Yamasaki & Associates, Architects

LCN CLOSERS, INC., PRINCETON, ILLINOIS

Construction Details on Opposite Page





WATER REPELLENT TREATED LUMBER **Bevel and Vertical Siding—Roof Decking—Outside Trim**

Weyerhaeuser's Water Repellent Treatment gives wood products a "raincoat" that protects before, during, and after installation and finishing. This raincoat protects lumber products from moisture absorption, and where such conditions are prevalent it also protects against damage from stains, molds, decay-forming fungi and termites. It provides a better paint base, paint spreads farther and lasts longer.

For a quality sales story . . . a quality job . . . and for the savings that a quality material can bring . . . use Weyerhaeuser 4-Square Water Repellent Treated wood products for siding, trim, decking, flooring, and fencing. It is available in 4-Square Kiln-dried Western Red Cedar, Douglas Fir, and West Coast Hemlock. Be sure to have complete and detailed information you need available for your specifying.



Weyerhaeuser Company

Lumber and Plywood Division



Weyerhaeuser Water Repellent Treated Lumber gives you a better finished job—4 ways to save

- Protects the wood
- Protects the finish
- Improves the job

Weyerhaeuser's specially developed repellent is a combination of water-resisting resins with a pentachlorophenolic toxic additive (to protect against stains, molds, decay-forming fungus, and termites). These active ingredients are mixed in a volatile mineral spirits vehicle which carries them evenly over the faces, edges, and ends of siding or lumber. A retention of 5 to 7 gallons of repellent per thousand feet is our specification.

Water Repellent Treatment is available in 4-Square Kiln-dried Western Red Cedar, Douglas Fir, West Coast Hemlock. It is recommended for all exterior applications except where there is ac-

the most common causes of paint failure. It slows down the loss or pick-up of moisture by the wood with the result that there is less cupping and swelling, reduced grain raising, less checking, and little or no water stain.

4 ways to save

Water Repellent Treatment makes immediate savings possible on paint and labor costs. In addition paint jobs last longer, and when the time does come to repaint, fewer repairs are necessary. These savings are possible because Water Repellent Treatment serves as a good paint undercoat . . . reduces brush "drag" so painting goes faster . . . makes paint spread further . . . and keeps more of the paint oils on the surface to prolong the life of the job. It makes two coats very nearly as effective as three coats.

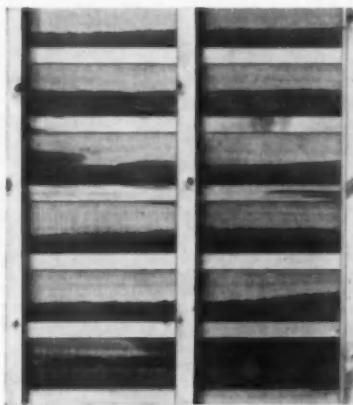


Photo of untreated test panel, after exposure to moisture in simulated weather conditions.

tual ground contact or an unusual moisture condition.

The untreated siding illustrated above shows the results of capillary action ("wicking") of wood fibers. The illustration in the next column shows how effectively Weyerhaeuser's Water Repellent Treatment stops this action.

Water Repellent Treatment actually "raincoats" lumber and siding to give it surface protection from rain and snow that's new to lumber handling. This raincoat permits painting at any favorable time up to several months after construction has been completed.

After painting, Water Repellent Treatment prevents wicking of storm-driven rain and snow, thus eliminates one of

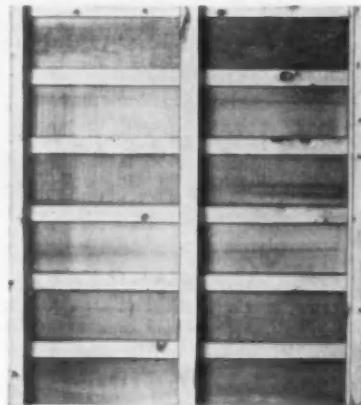
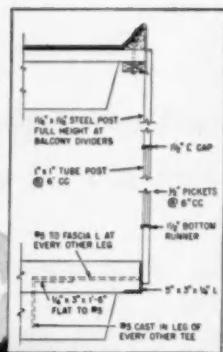


Photo of Water Repellent Treated test panel shows moisture resistance in identical test.

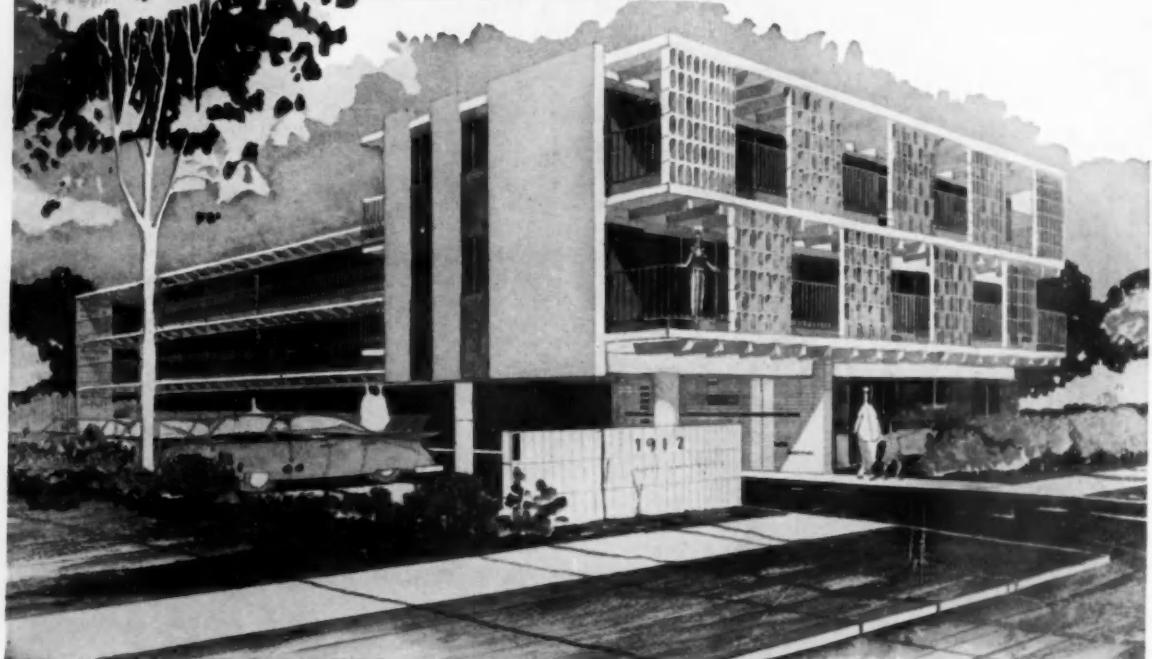
Uses

Bevel siding and dropsiding for homes, garages, barns, churches, schools, and commercial buildings. Also vertical siding in Board & Batten, WC-130, WC-134, WC-136, and WC-140 patterns. Outside trim, including fascia boards, casings, porch posts, soffit lumber, bevel sill, barge boards, pulley stile, and exterior mouldings. 2x6 Roof decking. Exposed beams made of doubled or tripled 2x6s, 2x8s, 2x10s, 2x12s. Porch and deck floors—1x4s, 5/4x4s, or 2x6s. Decorative fencing (note: use pressure treated posts wherever there is ground contact, water repellent treated lumber above ground.)

For additional information, write: Weyerhaeuser Company, Lumber and Plywood Division, Dept. 50, First National Bank Bldg., St. Paul 1, Minn.



another PRESTRESSED CONCRETE structure



Architect: Leon Brin, A.I.A., Denver; General Contractor: Norman Construction Co., Denver;
Prestressed Concrete Fabricator: Prestressed Concrete of Colorado, Denver.

Acoustic comfort is one of the sound reasons why prestressed concrete was used in this Denver apartment

Today, in modern apartment living, the trend is to generous balconies for "outdoor" living plus soundproofing to insure that leisure can be fully enjoyed. Prestressed concrete fills these needs admirably with speed, with economy and with the benefits that it brings to any job.

"In this 20-unit apartment, the double cantilever balcony is easily achieved with the prestressed concrete deck. Further, the deck and the concrete topping eliminate the troublesome floor to floor sound transmission to provide tenants with the acoustic comfort they demand.

"In addition, the deck becomes the scaffolding for the brick masons to work on each floor. The steel balcony railing is readily attached to the balcony angle iron fascia. (See detail above). With masonry

bearing walls and the prestressed concrete deck the structure is fireproof with no additional treatment required.

"The exposed tee sections provide an interesting beam effect within each room as well as from the exterior. Floor to floor heights were actually reduced 8 to 10 inches by using 7 feet 4 inches to the bottom of the tee and 8 feet to the deck. Weather had no effect upon the erection or quality of the deck which was placed quickly and directly.

"This construction has worked out so satisfactorily that work is about to begin on a similar apartment building containing 36 units."

Roebling has been a strong partisan for prestressed concrete since its introduction into this country some fourteen years

ago. The knowledge and experience gained from this activity puts us in the favorable position of being able to share information and data on prestressed concrete's different phases with you.

Please do not hesitate to ask us about whatever particular aspect concerns or interests you. It may be design methods, tensioning details or information on the finest prestressing wire and strand available, as manufactured by Roebling. Just write Roebling's Construction Materials Division, Trenton 2, New Jersey.

ROEBLING

Branch Offices in Principal Cities
John A. Roebling's Sons Division
The Colorado Fuel and Iron Corporation

Inland Steel Deck
gets you under cover fast

Inland Ribform
for poured construction



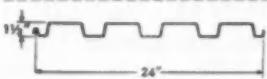
Steel deck or centering...you name it, INLAND has it!



A-DECK — For purlin spacings not exceeding 8'4". Narrow ribs provide deck surface that supports the thinnest or softest types of insulation.



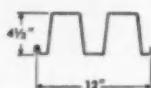
H-DECK — New! For simple spans to 20'0" — 3" and 4 1/2" depths. Especially practical to cover walkways in shopping centers, schools, other installations.



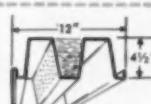
B-DECK — For spans to 10'0". Wide rib distributes metal for greater structural efficiency. Well suited for use as side wall panels.



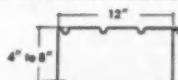
B-ACOUSTIDECK — Two-in-one panel combines steel roof deck with acoustical ceiling having Noise-Reduction Coefficient of .70. Used for spans to 10'0".



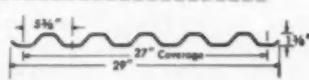
C-DECK — Carries normal roof loads over spans up to 24'0". Used extensively in canopies.



C-ACOUSTIDECK — Offers same Noise-Reduction Coefficient as B-Acoustideck. Can be used for spans to 24'0".



T-STEEL — New! Galvanized only. For clear spans to 32'0". Adaptable to acoustical and flush, luminous ceiling treatments. Provides superior diaphragm to resist seismic and wind loads.



RIBFORM — High-tensile, galvanized steel form for concrete slabs over spans up to 8'0". Three types: Standard, Heavy-Duty, Super-Duty (shown).

Expansion projects and new buildings get under cover fast and economically, when you specify an Inland roof system.

Inland steel deck is easy to handle and weld in place — in any weather that a man can work. Effects of construction abuse are held to a minimum, since types A, B, C, and H decks are Bonderized, then covered with a baked-enamel primer that resists on-the-job damage. One field coat of paint over this is usually enough.

In concrete-over-steel construction, Inland Ribform supports wet concrete with minimum deflection. Rigid sheets are quickly and inexpensively attached to supports — in place, they provide a safe work platform for crews.

Write for catalogs 240, 241, and 245 — see Sweet's sections 2c/Inl, 11a/In, and 2a/In. For help on unusual problems, you can draw on the diversified experience of Inland sales engineers. Write or call your nearest Inland office.

member of the



ENGINEERED PRODUCTS DIVISION

**INLAND STEEL
PRODUCTS COMPANY**

Dept. G, 4127 West Burnham Street
Milwaukee 1, Wisconsin

EP-54

strength permanence beauty



the galvanized, electrically welded,
heavy gauge steel wire lath

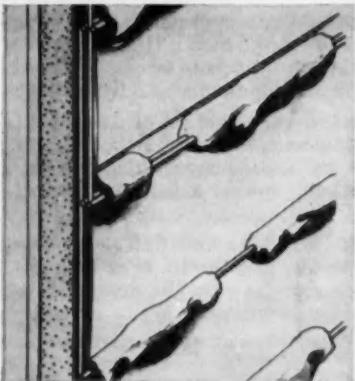


The Stuart Co., Pharmaceuticals
Pasadena, California

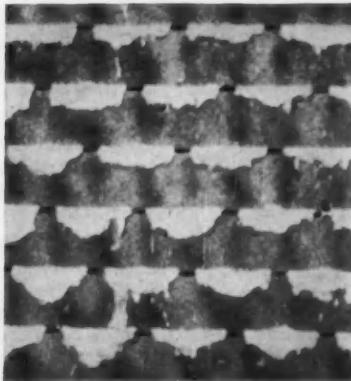
Awarded the 1958 AIA First Honor
award, Industrial Building class.

Edward D. Stone, Architect

*All interior surfaces and exterior soffits
of the Stuart Co. building are K-LATH.*



K-LATH is backed by heavy Kraft paper which acts as a form to control the flow of plaster forming scientifically staggered keys. The uniform embedment of front and back wires results in amazing strength and crack resistance.



K-LATH gives walls and ceilings permanence and unexcelled beauty because it is rigid, light-in-weight, yet 75% stronger* than other materials and it is galvanized for life.

*Certified test reports available on request.

Architect: Edward D. Stone
Contractors: Myers Bros.,
Brummett & Demblon, Inc. (general)
Richard F. Ruffner (lathing)
R. F. Jones (plastering)

For specifications and additional
information, write:



K-LATH is approved by the Uniform Code, State, County, Federal Government Building and Safety Departments.

Factories: Alhambra, Calif.
San Francisco, Calif.
New Orleans, La.
Sold through building materials
dealers and distributors.



more . . .



Ellison doors



AGRONOMY SCHOOL—University of Nebraska
Lincoln, Nebraska

Architect:

STEELE, SANDHAM & STEELE



8 ELLISON BALANCED DOORS
in the entrances to this modern building

The door that lets TRAFFIC through QUICKLY

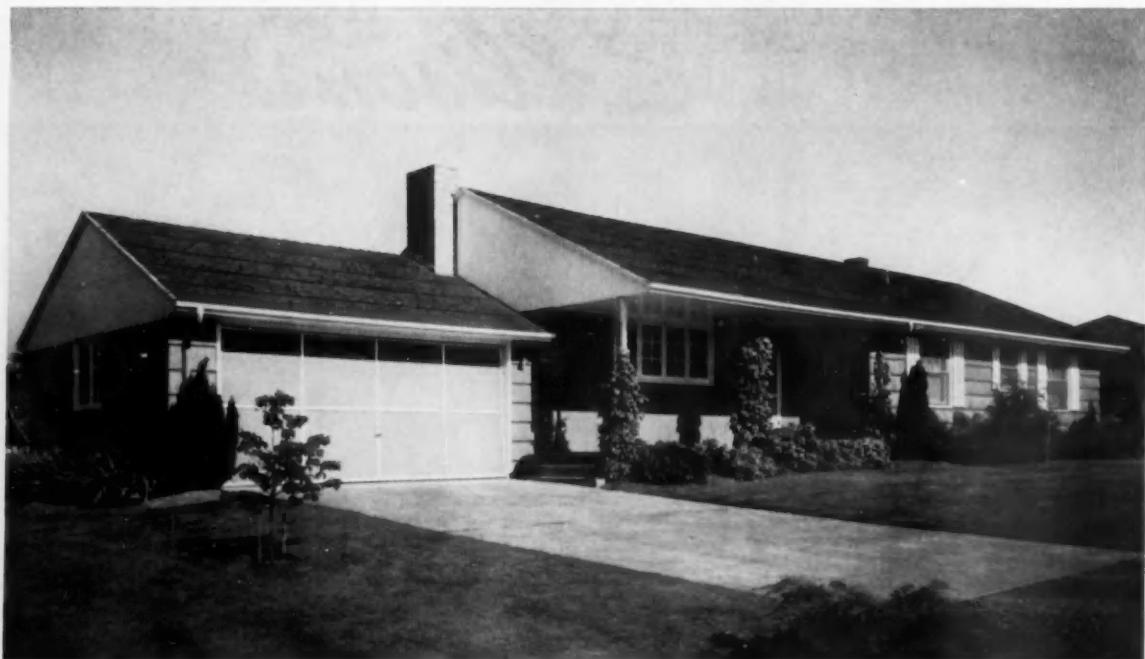
Ellison

ELLISON BRONZE CO., INC.

Jamestown, New York

representatives in 72 principal cities in U.S., Canada and Puerto Rico

the BALANCED DOOR



**handsome
is the
house of
CEDAR**

The house that is warm and friendly... the house with
the uncomplicated facade of natural beauty... is the
house of cedar. Confronted with elements of either
climate or custom, the *house of cedar* endures. That is
why roofs and exterior walls of red cedar shingles are
so prevalent in architecturally conceived neighborhoods.

RED CEDAR SHINGLE BUREAU

5510 White Building, Seattle 1, Washington
550 Burrard Street, Vancouver 1, B. C.



TWO NEW WALL CONCEPTS

Stark Ceramics presents two entirely new ideas for wall construction. In addition to Stark's well-known quality line of structural glazed tile, the Architect, Contractor or Creative Designer is now offered a structural glazed tile wall that fulfills the need for outstanding custom designs or a wall that meets the most severe budget restriction.



SCULPTURED

STRUCTURAL CERAMIC TILE

Sculptured Facing Tile is really unique in the tile field. While retaining all the strength, durability and beauty of facing tile, a new versatility has been added. Deep-sculptured designs permit unlimited pattern and texture possibilities. Available in one modular size—8" x 16" x 4".



Full details are available from your local Stark distributor or write direct.



WITH PRECISION-SYSTEM SURROUND FRAMES

Stark's new Thrift-Wall system offers savings in wall costs of $\frac{1}{3}$ or more. Three modular Structural ceramic units plus surround-type metal frames for doors and windows offer lower labor costs, lower material costs and savings in time of detailing and take-off. When the budget demands the finest wall at the lowest cost . . . specify Stark Thrift-Wall . . .

STARK
CERAMICS, INC. • CANTON 1, OHIO



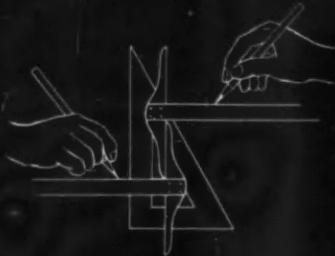


LET US BIND YOUR JOURNALS

NOW—one month delivery on all Journal binding at no increase in cost. You can preserve all your favorite Journal articles—the thoughts, ideas and references you'll use for years to come. Each volume is bound with a long-lasting rich red cover—a handsome addition to your library shelf. Six issues, supplied by sender—\$3.25; Six issues, supplied by Institute—\$5.50; Your missing or damaged issues replaced—\$.50 per issue. Send your order to: AIA Journal, The American Institute of Architects, 1735 New York Avenue, N.W., Washington, D.C. Check or money order must accompany each order. All volumes sent to you prepaid.



"Compatibly Engineered"
windows equipped with
Monarch weatherstrip
improve indoor climate control



Monarch makes only weatherstrip for the windows and doors produced by most leading millwork manufacturers

Because efficiency varies so widely between different makes of windows and exterior doors in retarding infiltration and exfiltration, it logically follows that those which provide the best protection against dirt, drafts and water leakage contribute the most in economy, comfort and cleanliness.

The only positive method of achieving this desirable maximum weathertightness is through "Compatible Engineering"—designing both weatherstrip and windows or doors specifically for each other. This practice of collaboration—with Monarch engineering the weatherstrip especially for the precision-assembled windows and doors produced by the leading millwork manufacturers—assures the most dependable weather protection now available.

Lower costs for construction, fuel and maintenance are only a few of the significant benefits you can give your clients by specifying "Factory assembled window and exterior door units shall be equipped with Monarch weatherstrip."

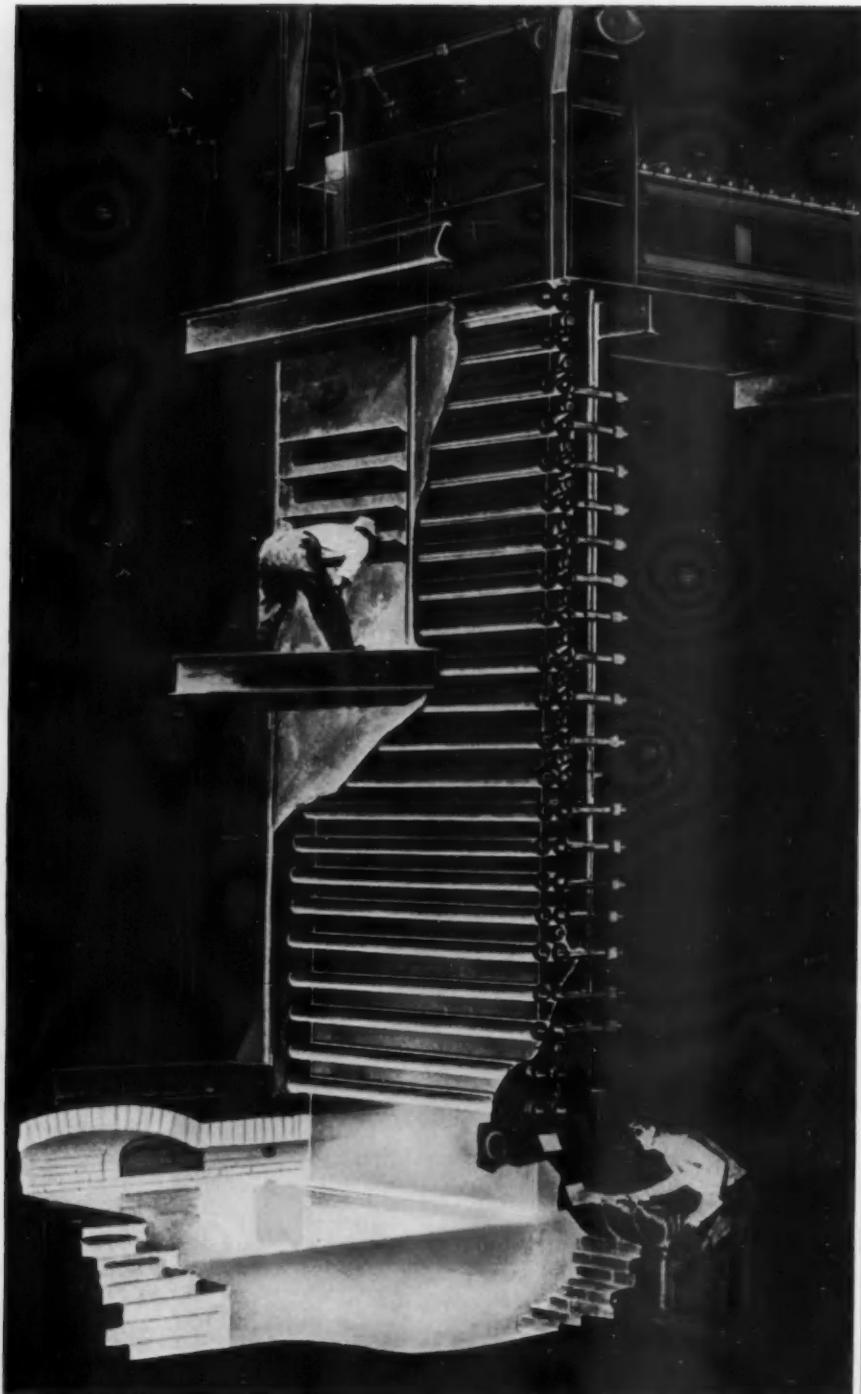
MONARCH
METAL WEATHERSTRIP CORP.

*World's Largest Exclusive
Weatherstrip Manufacturer*



6319 ETZEL AVENUE • ST. LOUIS 33, MO.

Announcing



The PENNVERNON Drawing Machine forms molten glass into sheets in a straight vertical draw. No rolls touch the glass surface until it has cooled beyond injury. This machine has enabled PPG to produce a super sheet glass far superior to any now produced in the United States.

a new kind of sheet glass
with remarkable freedom
from distortion...

PPG PREMIUM PENNVERNON®

New PREMIUM PENNVERNON. You've never seen a sheet glass like this before. Tests prove it has less distortion than any sheet glass now produced in the United States. Its development marks the greatest advance in flat glass technology since the perfection of the PENNVERNON process 30 years ago.

The heart of the PENNVERNON process is the giant, ladder-like drawing machine you see on the left. Glass, while molten, is drawn vertically up through the ladder. No rolls or foreign matter touch its surface until the glass has cooled beyond injury. The result is a sheet glass with an unusually brilliant unmarred surface finish, both sides, and practically no distortion.

All PPG sheet glass manufacturing plants are equipped to produce the new PENNVERNON in all standard thicknesses of window and heavy sheet glass. PREMIUM PENNVERNON is available through all PPG branches and distributors.



Pittsburgh Plate Glass Company

Paints • Glass • Chemicals • Fiber Glass In Canada: Canadian Pittsburgh Industries Limited

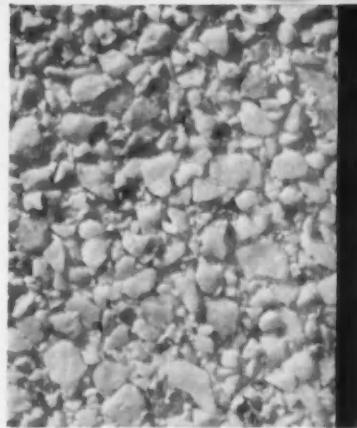
**YALE
FORESTRY
LABORATORY**
built with
**INSULATED
WALL
PANELS**
of

m-Sai®

Paul Rudolph, chairman of the Department of Architecture at Yale, turned his talents to the design of a unique new building for his own campus: the new laboratory for the School of Forestry. The design harmonizes with the steep wooded slope of the surrounding terrain.

For the exterior walls, Architect Rudolph chose versatile Mo-Sai, with an exposed white and buff quartz aggregate surface. The Mo-Sai facing is backed up with 5" of lightweight insulating concrete, making a six-inch-thick panel. Supporting precast concrete "Y" columns and sunscreen were also products of the Mo-Sai manufacturer.

William B. Greeley Memorial Laboratory School of Forestry, Yale University Architect: Paul Rudolph



**MO-SAI
INSTITUTE,
INCORPORATED**
 Members, The Producers' Council

BADGER CONCRETE CO.

Oshkosh, Wisconsin

CAMBRIDGE CEMENT STONE CO.

Allston 34, Massachusetts

ECONOMY CAST STONE CO.

Richmond 7, Virginia

GEORGE RACKLE & SONS CO.

Cleveland 5, Ohio

Houston 20, Texas

GOODSTONE MFG. CO.

Rochester 21, New York

HARTER MARBLECRETE STONE CO.

Oklahoma City, Oklahoma

OLYMPIAN STONE CO., INC.

Seattle 7, Washington

OTTO BUEHNER & CO.

Salt Lake City 6, Utah

P. GRASSI-AMERICAN TERRAZZO CO.

South San Francisco, California

SOUTHERN CAST STONE, INC.

Knoxville, Tennessee

SUPERCRETE, LIMITED.

Manitoba, Canada

TEXCRETE MOSAIC CORP.

Dallas 22, Texas

THE DEXTONE CO.

New Haven 3, Connecticut

THE MABIE-BELL CO.

Greensboro, N.C.

Miami 47, Florida

TORONTO CAST STONE CO., LTD.

Toronto, Ontario

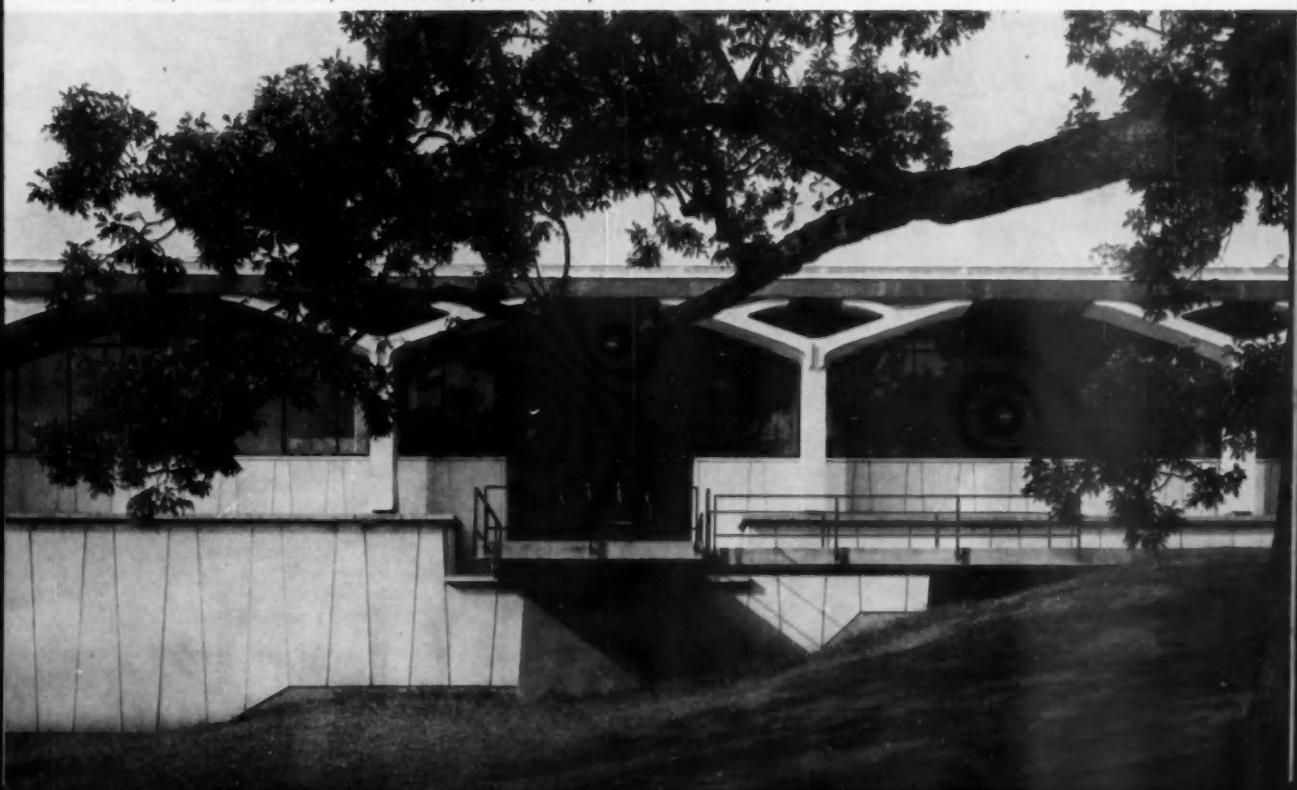
WAILES PRECAST CONCRETE CORP.

Los Angeles, California

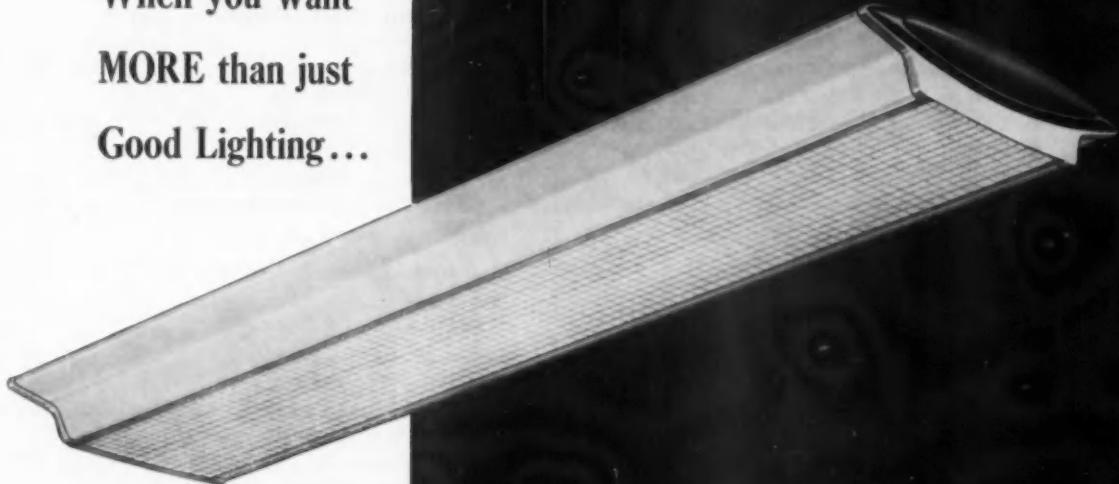
WILSON CONCRETE CO.

Omaha 7, Nebraska

© 1960 Mo-Sai Institute, Inc.



When you want
MORE than just
Good Lighting...



You want

Sylvania's CLASSIC Series

"Fluorescent lighting fixtures today must do more than provide good illumination. They must also add a distinct element of attractiveness to the ceiling to complement the overall interior décor."

With this concept in mind, Sylvania's Engineering Department, working together with the renowned industrial designing firm of Peter Muller-Munk Associates, created a new fixture family that is truly outstanding.

This is the CLASSIC Series by Sylvania.

The CLASSIC achieves, through its pointed elliptical shape, the elegance and style demanded by today's leading design concepts. This new fixture group features sleek, trim lines; flared, softly-diffusing side panels; and slim shallowness . . . all of which combine to provide a graceful appearance for any interior. To satisfy individual choice, plastic louvers or plastic panels are available.

And the practical aspect has not been ignored either. In addition to its extreme attractiveness, the CLASSIC also provides other important features . . . high-quality lighting characteristics and excellent installation and maintenance advantages.

But a mere description of the CLASSIC is hardly adequate. To appreciate the true beauty and application possibilities of this series you should see the fixture itself.

Write for full information today . . . and ask to have the CLASSIC* demonstrated in your own office.

Sylvania Lighting Products
A Division of SYLVANIA ELECTRIC PRODUCTS INC.
One 48th Street, Wheeling, West Virginia

*Patent Pending

GO MODERN
WITH LIGHTING BY

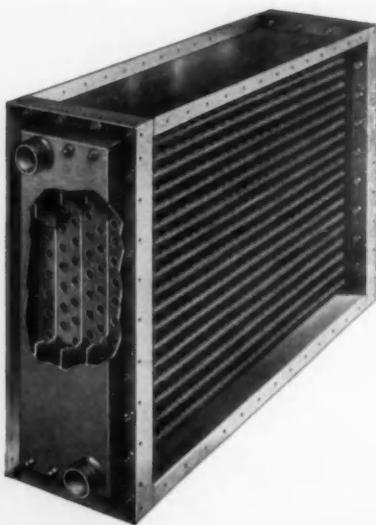


SYLVANIA

Subsidiary of
GENERAL TELEPHONE & ELECTRONICS



FLUORESCENT LIGHTING FIXTURES AND SYSTEMS • BEST FIXTURE VALUE IN EVERY PRICE RANGE



AEROFIN
TYPE "R" REMOVABLE
HEADER
WATER COILS

- **Complete Drainability**
- **Easily Cleaned**
- **High Heat Transfer**

Completely drainable and easily cleaned, Aero-fin Type "R" coils are specially designed for installations where frequent mechanical cleaning of the inside of the tubes is required.

The use of $\frac{5}{8}$ " O.D. tubes permits the coil to drain completely through the water and drain connections and, in installations where sediment is a problem, the coil can be pitched in either direction. The simple removal of a single gasketed plate at each end of the coil exposes every tube, and makes thorough cleaning possible from either end.

The finned tubes are staggered in the direction of air flow, resulting in maximum heat transfer. Casings are standardized for easy installation. Write for Bulletin No. R-50.

AEROFIN
CORPORATION

101 Greenway Ave., Syracuse 3, N.Y.

Aero-fin is sold only by manufacturers of fan system apparatus. List on request.

INDEX TO ADVERTISERS

Acme Metal Molding Company	6 & 7
Paul Wilson & Associates	
Aerofin Corporation	102
Wilbur Richards Company, Inc	
American Art Metals Company	83
Lowe & Stevens	
American Brass Company	85
Kenyon & Eckardt, Inc	
Armco Steel	19 & 20
N. W. Ayer & Son, Inc	
Armstrong Cork Company	10
Batten, Barton, Durstine & Osborn	
Blumcraft of Pittsburgh	13
Colonna & Company of Colorado	21
Dur-O-Wall	17
Roche, Richard & Cleary, Inc	
Ellison Bronze Company	93
Griffith I. Rowland	
Hillyard Chemical Company	84
Fardon Advertising, Inc	
Hopes Windows, Inc	22
Moss Chase Company	
Inland Steel Products Company	91
Kaufman, York, Paulson & Gerlach, Inc	
K-Lath, Inc	92
R. W. Webster Advertising	
LCN Door Closers	86 & 87
D. K. Morrison Advertising	
Loxit Systems	2
Brindley Roth, Inc	
Marble Institute of America	1
Moore & Company, Inc	
Monarch Metal Weatherstrip Corp.	97
Charles W. Bolan, Inc	
Mo-Sai	100
National Terrazzo & Mosaic Association	5
Henry J. Kaufman & Associates	
Otis Elevator Company	11
G. M. Basford Company	
Pittsburgh Plate Glass Company	98 & 99
Batten, Barton, Durstine & Osborn, Inc	
Precision Parts	16
Red Cedar Shingle Bureau	94
Botsford, Constantine & Gardner, Inc	
John A. Roeblings & Sons Corporation	90
Hazard Advertising Company	
Schlegel Mfg. Company	15
Rumrill Company, Inc	
Stark Ceramics	95
Sylvania Lighting Products	101
Sullivan Advertising Agency	
Trinity White Div., Gen. Portland Cement	17
Harris & Wilson, Inc	
Henry Weis Manufacturing Company	9
Juhl Advertising Agency	
Weyerhaeuser Company	88 & 89
Colle & McVoy Advertising Agency	

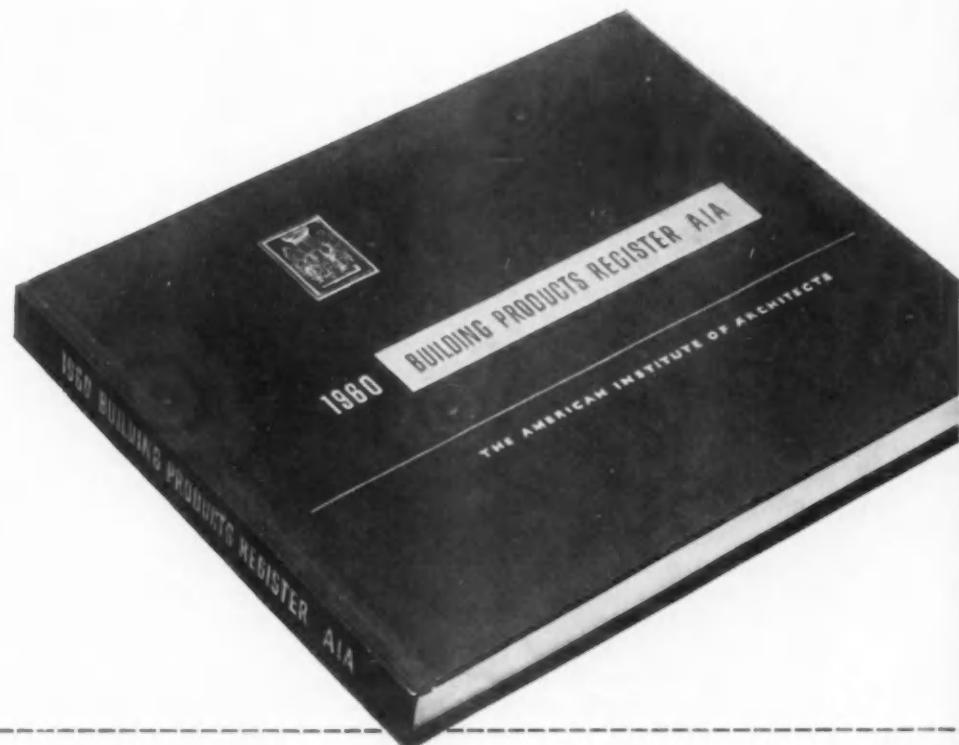


The American Institute of Architects

presents the 1960 edition of the Building Products Register—

first in an annual series of technical reference guides that will

help you choose the right materials for each purpose



Building Products Register, AIA
1735 New York Avenue, N.W.
Washington 6, D.C.

Please send me _____ copy(ies) of the Building Products Register at \$25 each. Check enclosed Bill me

Name (please print)

Street

City and State



ALLIED ARTS

BY WOLF VON ECKARDT

Two-fold Loss

As a vital force for good design, Walter P. Paepcke was second only to Adriano Olivetti. As a catalyst for bringing genuine culture into our commercial life, Olivetti was second only to Paepcke.

Both died recently within the same few weeks. Culture will sorely miss them.

Olivetti was, of course, the Italian typewriter king. But he was much more. He was among the first marriage brokers for the wedding of art and industry. His typewriters and adding machines are classics of modern product design—someone has rightly compared them with Brancusi's sculptures. His firm's posters, advertising and literature have, for the most part, greater artistic impact than most of the contemporary art you find in the museums. And Olivetti's showrooms, factories of office buildings and workers' housing were designed by brilliant and daring architects. The marriage is a most happy one.

Paepcke, too, used only the most outstanding artists, architects and designers he could find to create the many things he sponsored. As the head of the Container Corporation of America he was personally responsible for that firm's advertisements which first celebrated the birth of the United Nations and which for some time now help to spread the Great Ideas of Western Man. They proved that even advertising can be artistically superior and exciting. Paepcke also proved—successfully—that there is an important place for art in industry and the market place.

By insisting on excellence in creating the visual image of their respective enterprises, both men advanced our entire visual culture. They did so as a matter of profound conviction, as one manifestation of their cultural and social sense of responsibility.

This sense of responsibility led Olivetti to expose himself as a social reformer and political theorist and to enter the political arena in Italy. He also published books and magazines. He took an active interest in town planning and actually saved some backward Italian villages by extending the community planning idea to include a kind

of Point Four program. Last but not least he was a great patron of the arts.

So was Paepcke, who came close to turning Aspen, a half-forgotten Colorado ghost town, into an American Salzburg. His favorite expression was "cross-fertilization" which is the central idea of his Aspen Institute for Humanistic Studies where, between calisthenics and steam baths, top organization men are exposed to good music, erudite lectures, and deep discussions about Plato, Adam Smith and Karl Marx. Paepcke's bicentennial celebration of Goethe's birth attracted Albert Schweitzer, Ortega y Gasset and G. A. Borghese, among others, and was a cultural event of the first order. The international design conferences at Aspen did just what he wanted them to do: They cross-fertilized the minds of leading designers in the Western world.

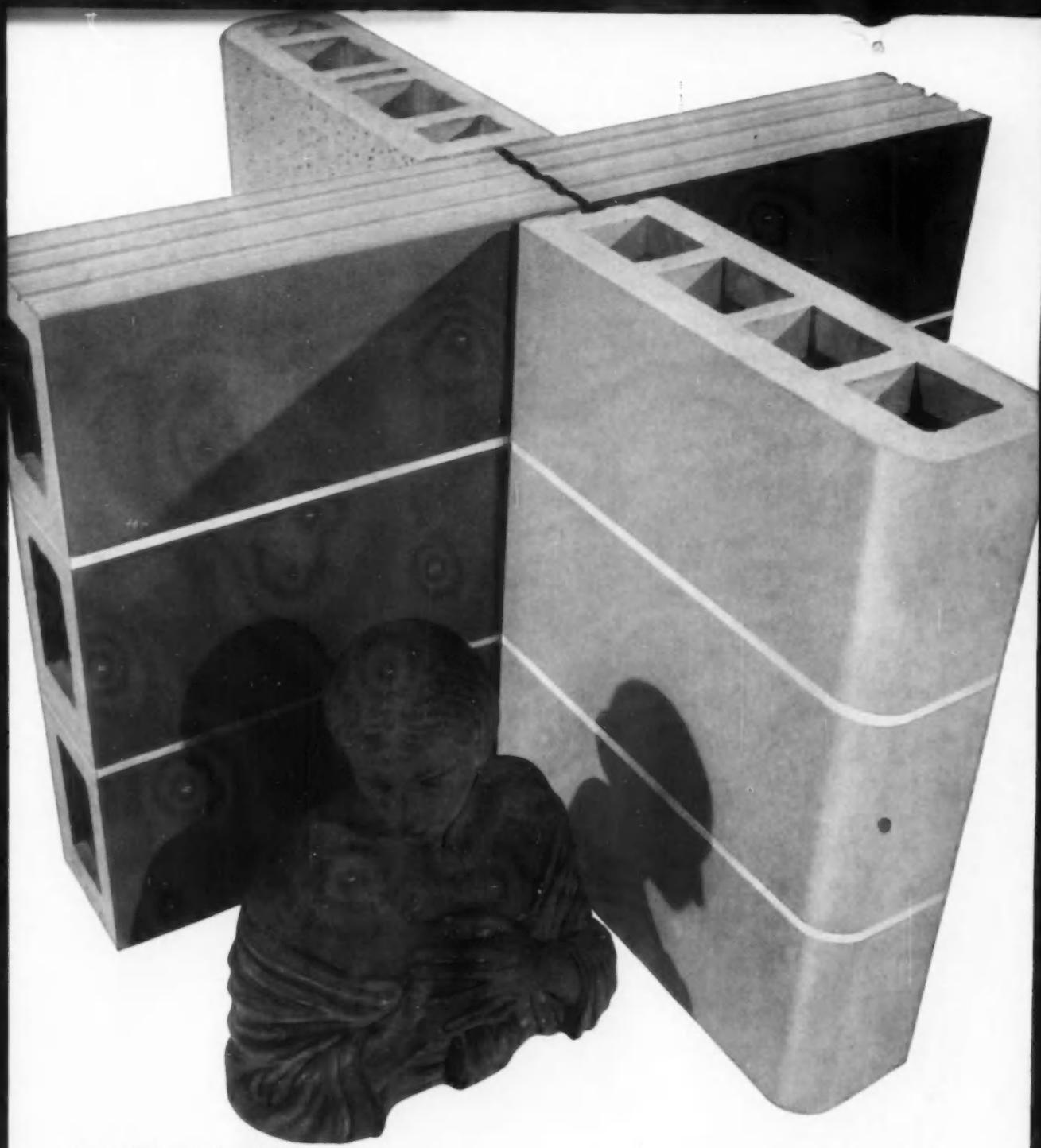
It is interesting that both men were influenced by the Bauhaus in their approach to design. Olivetti's first artist-designer was the Bauhaus graduate Xanti Schawinsky, now a painter in New York. Paepcke hired Herbert Bayer, who both studied and taught at the Bauhaus, as the Container Corporation's chief designer.

There is no doubt that their emphasis on visual beauty contributed vastly to the financial success of these two captains of industry. The Olivetti firm was behind its competitors when its owner decided to use advanced design to give the impression it was ahead. Paepcke's Container Corporation was a modest business, far from being "of America" when he started it in 1929.

But the noble Roman Cilius Gaius Maecenas, the friend and public relations man of Emperor Augustus, was not entirely altruistic either. He became the world's first great patron of the arts in order to use the genius of the day to glorify the Emperor's new regime.

At the time when architecture and the applied arts are largely determined by pusillanimous committees and market researchers who would have us believe that the public taste is no more sophisticated than that of the teen-age Pepsi-Cola set, dynamic individuals who also know *why* they like what they like, are a blessing indeed.

In fact, such Maecenas are essential.



Bust by Malvina Hoffman, from
The Corcoran Gallery of Art,
Washington, D.C.

Beauty and Structure Become One

Through Facing Tile The plastic power of clay, expressed in the bust of Pavlova and the structural beauty of facing tile, reflects the kinship of sculpture and architecture. To the architect, facing tile offers integrity of design—structure, finish, flexibility, color, permanence—the material means to art.



FACING TILE INSTITUTE
1520 18th Street, N.W., Washington 6, D.C.

These companies, whose increased production assures prompt delivery, have contributed to this advertisement.

ARKETEX CERAMIC CORPORATION, Brazil, Ind. • CHARLESTON CLAY PRODUCTS CO., Charleston 22, W. Va. • THE CLAYCRAFT CO., Columbus 16, Ohio • HANLEY COMPANY, INC., Pittsburgh, Pa. • METROPOLITAN BRICK, INC., Canton 2, Ohio • McNEES-KITTANNING CO., Kittanning, Pa. • NATCO CORPORATION, Pittsburgh 22, Pa. • STARK CERAMICS, INC., Canton 1, Ohio • WEST VIRGINIA BRICK CO., Charleston 24, W. Va.

Increased production assures prompt delivery.



